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## ORIGINAL ARTICLES.

### NERVOUS MATTER, WHAT IS IT?—THE OLFACTORY TRINITY.

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IN the discussion of the olfactory forces, we have advanced as far as the source from which the second member of the trinity derives its power, and we have found that it was intimately connected with, and was an offshoot from, one of the great cerebral forces—the trigeminus—whose dispensation of sensation to the face, eye, etc., and the effects upon the various expressions of the face in health and disease, cause this great nervous power to be eminently worthy of critical investigation. The varied and profound cerebral, cerebellar, spinal and sympathetic associations of the trigeminus make its expressional manifestations the subject of most anxious inquiry to the physician. To him, a mere passing look often clearly sees in the drooping and lack-luster eye, or scintillating, it may be, and flashing with the wild and restless glances of the delirium of cerebral congestion and irritation, in the flushed or pallid cheek, and the anxious and inquiring gaze, the indications of disease lurking deep within. But all these considerations belong to the trigeminus proper, and must be deferred until we reach the history of the powers embodied in that nerve. Our present business is with the contribution given by the trigeminus in the establishment of the olfactory trinity. This is bestowed by an emissary from its ophthalmic division, whose nasal branches proceed to the nostrils, and are minutely ramified upon their investing membrane. Another appreciative sense, and one that differs essentially from that appertaining to the first member of the trinity, the olfactory nerve proper, is hereby given. It will be remembered by the reader that we declared, when speaking of the penicillated fibrillæ of the nerves of the first member of the trinity, that each individual nerve-cell and filament of this branch of the olfactory sense was receptive and appreciative of *one individual odorous emanation, and of one alone*, and we designated them as being from the class of substances of pungent and aromatic, and also those of noxious and repulsive character. The same fact of reception and appreciation applies here, but, as stated before, by an instrument or agent by which it—the olfactory sense—may be re-

freshed by the more refined and exquisite exhalations coming fragrant and sweet from Flora's bounteous fingers. We here desire to impress upon the mind of the reader *the fact of the specific individuality of the delicate penicillated fibrillæ of these nerves of special sense, each fibrilla appropriating its own individual odor or fragrance, and also to keep fresh in his mind the deep-seated brain associations of each and every one of them!* When we come to consider, by and bye, the influences exercised upon the general economy of the body, upon its various organs, and the disturbance and perversion of their many and diverse functions by extraneous impressions made upon these minute and exquisitely sensitive tendrils of the olfactory sense, it will be necessary to recall these delicate threads of association whereby the olfactory sense cerebrum, cerebellum, central ganglia, spinal cord, sympathetic ganglia, and the whole interminable network of the cortex, its cells, its corona radiata, its association fibers, its afferent and efferent tendrils of communication, one and all are held in unbroken and continuous connection. The memory of these can alone furnish us with the Ariadnean thread to lead us out of the labyrinth of these nervous complexities, and help us to explain their various single and compound operations in the economy. While the integrity of each connecting link in this vast chain of nervous association is necessary to insure the perfection and completeness of its operations, so do we see that any imperfection of it, or any disturbing impression made upon it, however slight and simple it may be, will often cause it to vibrate with an unnatural and hurtful agitation, that will be transient or permanent according to the destructive force of the impression made, the nature of that impression, and the locality in which it has inflicted its power. A few words in relation to the associations of the nasal branches of the trigeminus, and we pass on to the investigation of the third member of the olfactory trinity, its sympathetic portion. To these nasal branches is confided a portion of the power inherent in the source from which they spring. It is a subtle power, for it must be remembered that they not only inherit the original intrinsic sensory force appertaining to the parent trigeminus, but that they are also inspired by the exquisite vitality of the substantia gelatinosa of the ganglion of Gasser with which the trigeminus is so intimately incorporated before its tripartite division into its large

terminal nerves, the ophthalmic, superior and inferior maxillary nerves. Not only so, but their associations and affinities, directly and indirectly, with the cerebrum, cerebellum, cortex, central ganglia, spinal cord and great sympathetic must also be borne in mind to help us to explain the effects upon these vital organs by impressions made extrinsically upon their terminal nasal fibrillæ and associated nasal cells.

The connections of the nasal nerves with the initial ganglia of the sympathetic may be summed up in a few words. Branches from the nasal pass to the ophthalmic ganglion, thus establishing a communication between the interior of the eye, the iris, ciliary muscle, etc., and the nostrils. To the sphenopalatine ganglion—Meckel's—whereby the same association is formed with the pharynx, fauces, palate, uvula, tonsils, eustachian tube, its lining-membrane, etc. To the submaxillary ganglion indirectly, thus influencing the secretion of the submaxillary glands; lining-membrane of cheeks, gums, sides of tongue, etc. The natural alliance of the senses of taste and smell are too well understood to require more than a passing mention. When we reach the consideration of the effects of various odors upon the organs enumerated, as also the results of pathological conditions, these nervous associations will serve to explain very many of the morbid phenomena that constantly occur. It is also only necessary to recall the sympathetic fellowship of the nasal branches of the ophthalmic division of the trigeminus with its other branches—the frontal and lachrymal—to explain their mutual influences upon each other. These will be duly noted when we consider the effects of the application of various stimulating forces upon them.

The sense with which we are now dealing is one to which man owes much of the comfort and pleasure of his life. It bestows upon him the inestimable privilege and enjoyment of the pure and refreshing air by which he is surrounded, and in which he lives and breathes. It enables him to receive, individualize and appreciate one and all of the exquisite and innumerable exhalations wafted to him from the teeming earth, with her flowers, fruits, plants, grasses and all else. The offspring of her fructuous womb, fragrantly greeting him at every recurrent vernal period. All of these and the individual powers of the olfactory appropriation of each member of the trinity, with their influences upon the body and its component organs, will be the subject of analysis after we shall have completed the consideration of the whole system of olfaction. There now remains the third and last member of the trinity, and by no means the least interesting and important of the three, its sympathetic, or emotional, portion. The etymology of the word sympathetic, as applied to a part of the nervous organization, is sufficiently suggestive of the vital influences

of its functional properties upon the general economy and well being of the body.

The *συν* together, and *παθος* suffering, of the word, as derived from the Greek, expresses not only the close and intimate association of this portion of the organism, with its various component parts, when the body shall be invaded by disease, but also its supervising and salutary influences in maintaining and regulating the due performance of the many vital functions that are constantly in operation within us, and by which life and health can alone be continued. The indispensable value of the ministrations of the great sympathetic was recognized in the early and remote periods of anatomical and physiological history, long before the cellulogical revelations of the microscope had made us familiar with the vital forces inclosed within its ganglia. As has been stated, the term "*petits cerveaux*"—little brains—as applied to them by Winslow, was distinctly indicative of the independence and controlling impulse of these vital forces, but in these days of a more perfected knowledge of the almost illimitable scope of sympathetic nerve-force, and in view of these vital influences, and their supervising and directing agency in compelling the due performance of functional duty among the various organs of the body, and keeping them in perpetually-renewed activity, it can hardly be considered an exaggeration to say that there is no portion of the great nervous system whose integrity is more indispensable to the welfare of the body and to the maintenance of the regularity and perfection of its innumerable and vital functional operations than that to which the name of the Great Sympathetic has been given. Let us look at some of the forces dispensed by it. But before doing so would it not be well to take a rapid survey of the physical anatomy of this agent whose ministrations are so vital and essential to life and health? We have already defined a ganglion, as applied to certain swellings scattered here, there and everywhere throughout the nervous system, as bodies containing nests of cells of various forms and shapes, spherical, oval, oblong, spindle-shaped, globular, etc., and provided with antennæ, or tentacula, or feelers, by which their associations with surrounding parts, and with each other, are maintained and endowed with an exquisite vitality that is being perpetually imparted by them, and as batteries of reinforcement, so to speak, to keep up the supply of their inherent vitality wherever it is needed. The name of the Great Sympathetic is given to a series of these ganglia, deposited at certain intervals, beginning with a small ganglion, called the ophthalmic ganglion, located just behind the ball of the eye, and reaching from the interior of the cranium down the whole length of the spinal column, on either side, to the coccyx, and there terminating in the "ganglion impar,"

or ganglion without a fellow. From one end to the other of the series the ganglia are in intimate association with the great nervous trunks and their branches, cranial and spinal, cervical, dorsal, lumbar and sacral, and the functional powers of all are held in close relation and affinity, and dispensed with accordant harmony and sympathetic unity for the common weal wherever they are to be found. Let a bird's-eye view of these functional powers suffice for the present to give a glimpse of their far-reaching activities and their responsive resistance to any invasion or interference with the regular performance of their several functional duties.

The special sense with which we began this series of investigations, receives from the association the initial cranial ganglia of the great sympathetic what we have designated as the third member of its olfactory trinity, and inasmuch as an indivisible unity is the special characteristic of the sympathetic ganglia, any impression made at any portion of it is uninterruptedly conveyed along its whole length, and is felt by every part of the organism, however remote, to which it may extend. In our bird's eye view we will take in the propelling force of the great sympathetic as exerted upon the circulation of the blood by what is denominated its vaso-motor or vessel moving power, and which is effected by its nervi-vasorum, also the opposite condition, viz., its vessel-staying or inhibiting power vasor-stator, exercised whenever its primitive force has been interrupted by morbid encroachment or interference, an efficient factor in the production of congestions, inflammations, etc. This has been amply proved by the experimental sections of the sympathetic, by Donders and others. We will also hold within the field of our vision the relations of the sympathetic ganglia to the glandular secretions of the parotid, submaxillary and sublingual glands to deglutition, to the different qualities and intonations of vocalization, and their individual and ethnological characteristics, from the "infant mewling and puking in its nurse's arms" to the "piping treble, and lean and slippered pantaloons of old age, sans eyes, sans teeth, sans everything." Passing downward we reach the vital machinery whose work must go on without fail at every second of time that we live, hour by hour, day by day, and night by night, whether consciously or unconsciously, with a rhythmic regularity that admits of no stay or impediment. Lungs and heart must have air and blood. The "*besoin de respirer*"—air-breathing need—must be supplied. Freshly purified blood must be sent on in continuous and healthful stream, freighted with the materials for re-building and repairing, and to prevent the ever-present tendency to decay and death. Who was it that said that "Life was a constant struggle against death;" wasn't it Zeno? and sound philosophy it

was too, and amply proved since his day by physio-pathological microscopy. He knew nothing of protoplasm, of cells, ganglia, of the disintegration and reintegration and absorption of cells, of cell fission and cleavage, of "the bursting the cerements" of their capsules, of their transmigration and deposition of disease at remote points. He never heard of an osteoblast, a myoblast nor a neuroblast, and yet, as though inspired with the spirit of prophecy, he gave the most comprehensive interpretation of the sum and substance of human life that language is capable of giving when he said that "Life was a constant struggle against death." And so we might go on and question the influences of the sympathetic upon stomach, liver, intestines, kidneys, uterus, ovaries, with their several function of digestion and assimilation, their secretions and excretions, the great duties of ovulation, menstruation, conception, utero-gestation and parturition, each and all constantly awaiting and receiving the vital impulse that is as constantly being generated and dispensed by those wondrous little bodies, those "*petits cerveaux*," the ganglionic links in the great sympathetic chain, interblent with, and connecting brain, cortex, central ganglia cord, and the vast and endless meshes of nerves in one continuous network, through which the life-current must ever pass and repass, afferent and efferent, and busy at its work of keeping to the end the lamp of life aflame. And now, before returning to the olfactory sense, and the effects upon it of the application of stimulants of various kinds, a few words might be pertinent upon what may be termed Pharmako neuro-cell homology, or the affinities between nerve-cell vitality and the action of drugs.

One of the most inexplicable facts in the whole range of medical science is what we so constantly see in the elective affinity of certain drugs with certain portions or departments of the body. In many instances this elective affinity is so marked and so invariable, that the term specific may with all scientific accuracy be applied to it. A few examples of this, taken here and there, will suffice to illustrate the truth of the above statement. The merest tyro in knowledge of drug action is familiar with the toxic effects of strychnine, and of its special elective appropriation of the muscular structures of the body whereupon to exercise its toxic drug potentiality. One has only to witness the morbid phenomena seen in tetanus, whether it be idiopathic, from some obscure irritation along the nerve-courses, or traumatic, from some injury, often the slightest and simplest, especially where there is a peculiar and individual susceptibility to the effects of injuries of any kind whatever. This is the case, whether it takes the form of tetanic convulsion described as the opisthotonos—*οπισθεν, τεινεν*—to stretch behind, the body being arched and resting on occiput and heels,



the emprosthotonos—*εμπροσθεν, τείνειν*—to stretch before, body resting on forehead and toes, or the pleurosthotonos—*πλευροσθεν*—the side and—*τείνειν*—the body curved laterally. One has only to see the victim to these racking convulsions and then to compare them with the agitations produced by the drug strychnine, the nux vomica, when it has been taken into the body in toxic quantity, to be convinced of the fact of the identity of the portions of the organism involved in the attack. Can any man tell why and how these violent morbid phenomena are produced? Can any man tell why these frightful agitations and convulsions rack and torture the suffering body? We know that the reply will promptly come, and it will be, nervous irritation. Very well; but what sort of nervous irritation, where does it begin, what part of the nervous system feels the irritation and is specially agitated primarily? Let us try and get at the solution of this difficulty. A man walking his room in his "stocking feet," as the expression goes, treads on a pin, or a tack, or any other detrimental that happens to be convenient, or he stubs his toe, may be trying to kick something or somebody, as men will sometimes do, and women too for that matter perhaps; or he cuts his nail too close to the quick, or any other simple mishap. It will not be very long before he is writhing on his bed, or on the floor, his body contorted and distorted, like the laocoon in the deadly coils of the serpent, begging for help and relief from his cruel agony. Traumatic tetanus, says the surgeon, and straightway the whole hypnotic sedative and soporific drug armamentarium is appealed to and brought into contribution to put the nervous irritation, said to be the cause of all the trouble, to sleep. Now, in the case of the convulsions from strychnine poisoning, of course, the system must be first cleansed of the "perilous stuff" by antidotes, stomach-pump, etc., at the earliest possible moment, and if the point of killing has not been reached by the deadly drug, the patient will recover. We've seen that a pregnant woman is suddenly brought face to face with a shocking and revolting object, and in due course her child comes into the world unsightly and loathsome, a thing to be shunned of men, and so horrible to look upon, that even the eye of maternal love dare not encounter it. It will be remembered that in the June article of this series of investigations into the arcana of the nervous system, we invoked the aid of infinitesimal cell-potentiality to help us to unravel this subtle mystery. We will quote what we then said: "Are the mysterious powers of the corporeal '*ψυχη*' set in motion here, and do they carry out the dreadful work and instil the poison into the cells of the now rapidly-growing foetal nervous system, and by consequence into its tributaries the formative cells of construction and formation and their efferent nerves, which, but too faithfully, photo-

graph upon the innocent lineaments, now in process of moulding, the cruel image of the abhorrent object received from without." If cell-potentiality can do such things as these. If the corporeal *ψυχη*, soul, anima corporea, aura, spirit, imagination, call it what you will, as we then said, of the mother can so blight her offspring; if the cells of the cortex of the brain can elaborate and make manifest the wondrous things of mentality and intellection, and we have seen that they undoubtedly do, then why can not the same potentiality give birth to these morbid manifestations in the body, though acting under different conditions, and by means of more tangible and physical agencies?

May not the neuro-cell potentiality that can send a living child into the world "before its time, and not made to court an amorous looking-glass"—may not that same potentiality, when exercised by a different class of cells, and whose operations, more gross and less refined in character, are dispensed in a different sphere, that of the motor and muscular agencies of the body, may not these, the myoblasts of the nervous organism, be the efficient factors of all the morbid phenomena we have recounted? We have but to recall the interblent and interwoven meshes of association between the ganglionic cells of the sympathetic and the innumerable strands of nerves afferent and efferent, coming and going from everywhere, uniting and consolidating sympathetic, spinal cord, central ganglia, cerebrum, cerebellum, medulla, oblongata, corona radiata, cortex, one and all, in one continuous and indivisible unity, to understand that a force, however small and insignificant it may be primarily, may generate an impetus that shall shake the whole complex organization called the human body to its deepest center. By-and-by we shall see that the subtle and delicious fragrance of a flower is potent to do this. The irritation, whether it be traumatic, idiopathic or toxic, produces phenomena singularly alike in their physical manifestations, the one by rude physical contact of some offending cause, the other by a specific elective affinity of drug-force to cell-vitality. In other words, the same nervous elements have been intruded upon by physical or mechanical force and toxic drug force, tetanic agitation of the muscular motilities of the body—to all appearance identical in every respect—has supervened, and so, by involving the generating powers of muscular agitation, the myoblastic cells, not only do we establish the fact of Pharmako neuro-cell homology or affinity, but also that of its analogue, the myo-cell blastema, and all under the same general neuro-cell supervision and control. As in the case of the specific action of strychnia, so might we also apply the same to the secale cornutum, or ergot, to the muscular structure of the uterus, that of aconite to the whole apparatus of



circulation, the well-known effects of belladonna upon the brain, etc., but "*ex uno disce omnes*"—from one learn all—and we will content ourselves with one other example. By the depressing effects of the poison of malaria, sympathetic vaso-motor influence has been interfered with, and a disturbance or arrest of the diffusion of animal heat has resulted, hence chill of the surface and consequent internal congestions. The tonic effects of cinchona and its alkaloids re-stimulate ganglionic neuro-cell and nerve-force, congestions are removed by the re-awakened and rehabilitated vaso-motor power, and all the organs that have, for a time, been deprived of its stimulating energies, resume their functional activities, and the malarial poison is ejected from the system.

The next step in our investigations leads us back to the olfactory trinity, and the effects of the application of various odors to its three receptive departments, and the conveyance of them to the different organs of the body, with which the olfactory sense is in direct or indirect nervous association. Let us examine these effects upon the first member of the trinity, the olfactory nerve proper. We have seen that its receptive power is in affinity with odors and vapors of the pungent and aromatic and noxious and repulsive character. Accordingly, with the repulsiveness of the odor and the receptive idiosyncrasy of the individual, so do the general effects upon the various organs make themselves felt, and only a transient impression is made, or a disturbance is experienced that may be profound and continue for a length of time, one organ after another feeling the impulse conveyed by the primary olfactory impression. The stomach may respond, causing emesis, or the intestines, with diarrhoea supervening, or the uterus during gestation, resulting in contraction, with hemorrhage, and perhaps premature birth, or all the protean phenomena of hysteria may be called into active operation.

Again, the vapors that are taken in by this sense, and by the nostrils generally, may be of so pungent and acrid a character as to produce corrosive irritation of the nostrils, throat and air-passages, and also asphyxia from the inhalation of poisonous gases. Then again come in the salutary facilities of this member of the trinity, permitting the inhalation of antiseptic and other healthful and healing remedies for catarrh, ozoena, diphtheria, and also of ether or chloroform to relieve pain, ammonia and other stimulants in syncope, fainting, etc. Let us pause here awhile and inquire how these effects upon organs so remote and so diverse in their functional properties are produced. To answer this inquiry we've but to recall the endless nervous and ganglionic associations of the central and general nervous system with the great sympathetic to account for all these phenomena. We will

recount a few in the choking of hysteria and laryngismus stridulus by irritation of the laryngeal branches of pneumogastric and their sympathetic associations, the inhibitory influences of the pulmonary and cardiac plexuses of the pneumogastric and sympathetic ganglionic tendrils, acting upon the pulmonary parenchyma and cardiac muscular structure, thus enfeebling the action of heart and lungs, followed by syncope. And so by the same combination of nervous and ganglionic associations are the stomach, liver, intestines, kidneys, uterus, etc., made to feel these depressing effects, beginning at the nostrils and conveyed to the remote parts of the organism. From another variety of odors in affinity with the first member of the trinity, we get very different results. They belong rather to the aromatic than the pungent, and their effects are of a more pleasurable character, sometimes exciting rather inordinate and unnatural emotions. Among them may be reckoned those odors that stimulate the passions, and that may be called *eroto-genetic*. We observe this at certain periods of the year among animals, when the body of the female exhales a characteristic odor that is productive of *eroto-genetic* impulses in one of the opposite sex. The same holds good in the human, though not exactly confined to such periodicity; man always was, and always will be, the most selfish and exacting of animals. "Send me a cool rut-time, Jove" said the fat knight when redolent of "an intolerable deal of sack" and canary, and in antlered dignity and amorous impatience, he awaited in Windsor forest the coming of the "merry wives." Then the aphrodisiac impulses of nymphomania, of satyriasis. The euthanasia from the inhalations of opium smoking and the combined inhalation and introduction into the body of "*Hasheesh*" the *cannabis Indica*, we've only to read the graphic story told by De Quincey to see in the mind's eye, and to realize the languorous and voluptuous dreams that wrap the senses of the sybarite as he reclines in sensuous and indolent ease, smelling and tasting the soothing and exquisite confections peculiar to his oriental home. Of the receptive properties of the second member of the olfactory trinity. Here we meet a more refined and a more cultivated power, in the sense of its appreciation of what is exquisite and delicate in fragrance in the realm of perfumes and flowers. It has another charm besides, the charm of emotional joy and happy recollection, often mingled, 'tis true, with the regrets of retrospection, and the sorrow for what has been, but is no more. Where do we find this sense that is given for our enjoyment? Did we not find it coming from among the deep and hidden penetralia of the brain, its tendrils of association reaching out to brain cortex, cerebellum, central ganglia and sympathetic, and holding close communion with the wonderful factors of

mind, intelligence, thought, emotion, memory and sympathy, the world of man's elevation beyond the grosser things of earth that lifts him into a sphere of nearer relation to his Maker.

We've only to tell the story of a little flower. Who has not felt its magic, and God help the man who has outlived it! We've only to recall the fragrant perfume as we pass by. We've only to live over in memory the giving and taking of the first humble violet. Never again, while we live, will we forget that happy hour. By this exquisite sense that has been implanted within us, to be a source of pleasure and enjoyment, will that same sweet fragrance make us live over again the hours long gone down the stream of time. But we must fill out the picture with other links of the electric chain. There are other memories that this olfactory sense often evokes from the past. There are not many of us to whom the sickly odor of the tuberose will fail to bring back the memory of a shrouded form lying pale and cold in death. To the writer the fragrance of the lily of the valley, however transient, and even when the mind is far away, "on other thoughts intent," will instantly bring, and almost in fleshly form and presence, one long numbered with those who have gone before. It remains to consider, in few words, the last member of the trinity, its sympathetic or emotional portion. In many respects this is closely allied with the preceding, the second member, that is, in its emotional effects; but there are other physical manifestations that are peculiar to the ganglionic system. Beginning with the ophthalmic ganglion, the first of the series of sympathetic ganglia. By its contributions to the eye by means of its ciliary nerves, the movements of the iris, the curtain of the eye, are regulated and controlled. By its trophic and vaso-motor influences, the circulation and nutrition of the eye are, in great measure, effected. The stimulation of its olfactory association makes itself visible in the increased brilliancy and awakened expression of the eye from the sense of olfactory enjoyment. To the contributions of the second ganglion of the series—the sphenopalatine or Meckel's ganglion—to the olfactory sense, are mainly due the sympathetic perfection that this sense enjoys. Its influences upon the pharynx, palate, pharyngeal mucous membrane, roof of the mouth, cheeks, gums, and in connection with the submaxillary and sublingual ganglia, upon the salivary glands, etc., have already been sufficiently adverted to. What makes the eye fill under olfactory influence, the bosom heave, the breath come quick and short, often to choking, the heart beat tumultuously, the voice interrupted by sobbing, inarticulate sounds, the whole frame agitated by irresistible emotion, only to be relieved by the release of the pent-up sigh and the falling tear? And so we might go on adding innumerable other evidences of the vitality and

living presence of these mysterious ganglionic and nerve-forces in the organization of our material bodies. To us, they and their functional activities offer the only solution of very many of the hidden things in the body, that have so long and so persistently defied the closest scrutiny. When Valentin tells us that the two-millionth part of a millegram of musk will odorize an apartment for an indefinite time, and when this olfactory sense, the mysteries of whose multifarious powers we have patiently pursued, and have striven earnestly to discover, and find that it can not only receive and appreciate that inconceivably infinitesimal aroma, but can convey it to the organism, and compel its acceptance of it, and the manifestation of its presence in one or more of the many responsive phenomena, whether morbid, emotional or other, that we so constantly see, then we feel like saying that though our head may ache and spin in the effort to solve these knotty neuro-cell and nerve problems, be it so, we'll accept the aching and the spinning, but, all the same, we believe we're on the right track to the unfolding of much that the books don't help us to, and we shall go on believing and hoping, and casting doubts behind us. In "Measure for Measure," Lucio says to Isabella:

"Our doubts are traitors, and make us lose  
The good we oft might win, by fearing to attempt."

#### HIGHER MEDICAL EDUCATION.

By W. R. DUNHAM, M. D. (HARV. '65), TROY, N. H.

THE idea of a higher education is certainly commendable, but in anticipation of such fulfillment what direction of research shall be pursued? Is it to come through a more early training, longer college term and clinical observation, or a better knowledge of the principles and laws of a medical science? Shall it come more specially through a mental training which affords ability to think more scientifically, or from a larger multitude of observations?

It would seem rational, that with correct thought and comprehension of the principles and laws of a medical science, that we might make experience and observation more instructive and useful.

Thought and observation seem to be each indispensable to the other.

When we anticipate a higher education, shall it be more of the same kind or of a different kind and better quality of comprehension?

Shall we add wholly and more to our present stock, or have we something to unlearn?

In other words, shall we be required to eliminate certain ideas and phraseology and substitute different ideas and different phraseology?

When we anticipate a higher education, have we yet to learn that our present education contains something wrong in ideality?

While language represents ideas—does our phraseology of common use represent ideas correctly, in duplicate with the principle and facts provided in Nature for a medical science. While desirous of a higher education, would it not be of profit to review our present premises and, if found correct, prove up what we claim and establish such boundaries as seem to be required in defense of all trespassers who might suggest that our phraseology and ideality were defective, and thus presume to allege error in title to science.

If we are right, it is very important to know it—while if we are wrong, it is of greater importance to know it. If we are right, we should proceed in the same direction. If we are wrong, we should proceed in a different direction.

Thus to establish premises for comparative illustration, we make reference to those sciences whose laws and principles are demonstrated.

In chemical and astronomical science the phraseology seems to represent correctly the principles and laws of the science as provided in Nature. Have we achieved equal success in medical science? Have we? Have we? Does our phraseology represent correctly the principles which exist in medical science as provided in Nature?

In adjusting such matters, we must imitate Nature rather than persist that Nature must conform to conventional resolutions. The dividing line between right and wrong frequently seems of trivial importance, but as we diverge from such line the importance magnifies.

There is no compromise with a scientific principle. If we interpret it correctly, we are always right; if we interpret it erroneously, we are always wrong.

Shall we nourish that pride which persists that wrong is right, or that it is of no practical importance either way? Such would not illustrate a scientific mind—but a go-as-you-please mind—not very valuable for the development of a science.

Now we will examine some of the phraseology of our medical science, relative to its appropriateness—in representation of correct ideality and of correct principles of the science.

The phraseology, "physiological action of drugs," has more recently found its way into medical literature.

The ideality implied is that certain drugs act physiologically, and that is what medical literature is entailing to posterity.

It is not necessary to give much time with this phrase—its fallacy will become more prominent later. When we seek to comprehend how Nature executes a physiological action, we learn that vital power, acting in relation to nutrient material for constructive purpose, is an event in Nature where said power is executing physiological action.

There is no other name for the event in illustration

of the correct principle. Have drugs got a power to convert food material into organized structure?

If so, the term "physiological action of drugs" is right.

Otherwise, such term expresses no principle in science.

What does the term "medical power" mean? What does it represent that is true?

Medical literature affirms that drugs act both physiologically and pathologically.

If drugs act, they must have powers—active powers.

In distinction to this doctrine, there is not an intelligent physician in America who believes in such a principle as a medical power in Nature; and, what is more emphatic, they positively deny the validity of such doctrine.

The term medical power represents no principle in Nature, although this heresy is taught and presented with great dignity.

We have no intelligent physician who believes he is contributing supplementary energy to his patient in a dose of medicine. The term "active medical property" is only another form of phraseology for "medical power." It is a more refined method for expressing heresy.

In the same pew, and with the same class leader, we find the terms "medical power," "active medical property," "physiological action of drugs," "active medical principle," "action of medicine."

None of these terms represent or give correct ideality to the principles of a medical science.

While such terms might be admissible in a culture which was learning a trade for an industrial pursuit, they are very far from being admissible in the study of a science, for the purpose of comprehending a science to be applied to the salvation of human life.

Can we use such terms to instruct in a medical science, while such terms represent no principle or fact in the science? How is this?

Let us examine the facts which succeed with relations of drugs, then consider the principles which are implied in such effects.

Now, while drugs are useful to produce medicinal effects, what power executes to produce the effects we desire? Such are the ways in science.

When we solve this problem we have worked out a problem in science whose principles should be represented correctly. Otherwise we are making no progress in developing the principles of a science.

Because medicine produces effects desirable, are we required to infer that the medicine acts? Would not the idea that the medicine might be a cause for the vital power to act differently express as much intelligence and become an ideality more in duplicate with the correct principle in Nature? The medical profession tell us that med-



icine has no power; consequently medicine, to produce effects, must be a cause for the vital power to act differently. Which is true?

Is reason of any use in medical practice or in the study of a medical science? Have we any right to use reason in opposition to constitutionally acquired heresy? The medical student, or the student of science, must begin right here for first principles. If we adopt the correct ideal principle we can develop a science; otherwise we wander into the mire and pray for a higher education.

Does a practice of medicine consist in guiding the vital power or in supplying a medical power? If we supply medical power or active medical properties we should study the law of the power which acts.

The profession deny the power medical, yet study what they call the effects of the power medical, or active medical property.

The ideal of correct thought, of scientific thought, would be a study of the effects produced by medicine, dependent on certain laws of active vital properties.

Don't say, "practically it makes no difference—we are above this kind of hair-splitting theory." Practically and intellectually there is a vast difference—the difference between life and death many times. If the reader can see no practical difference it is not because he is looking higher, but because he does not look high enough to comprehend correct principles of the science he chooses to practice. An engineer who could not comprehend whether the engine drew the cars or the cars pushed the engine would often find himself in a bad predicament.

The phraseology, medical power, medical action and active medical properties, has come down to us as a human invention, supposed once to be an ideal representation of the principles in Nature. Such is not true, and such terms do not represent a principle in science, and the profession deny the ideal medical power. There is no such department thus represented. In place of "active medical properties," we have "active vital properties."

Does any one deny that we have vital properties—active vital properties—which express vital power? Does any one deny that there is an active vital power which executes the phenomena of life in health and disease? Does any one deny that there are laws of action to vital power which executes the phenomena we are required, as physicians, to consider and guide? We think not. Now, be honest; what do you find in medical literature in explanation of this department of vital ability outside of physiological process? Let those tell who know.

Our research in this direction has been rewarded with the following, "vital power is something no one knows anything about."

"This generation and generations to come will have passed to their everlasting rest before a discovery of the secret of vital activity is made."

Do we want a higher education which may include this department, or a higher education with this department left out?

Astronomy has become a science, because man comprehends the nature, principles and laws of the power which executes the phenomena they are required to consider. The reverse is true in the medical department. We have no demonstrated science—because we have no knowledge of the nature, principles, properties and laws of vital power—which executes the phenomena we are required to consider.

Not only is this true, but we are told that we are without sufficient brains to comprehend such department, and must wait for future generations to solve the problem.

A little more reason is useful just now, and the reason you don't know is because you have been frightened out of trying to know.

To be popular you must keep in the old channel and not buck against distinguished reputations.

Assertions associated with distinguished reputations in connection with the extreme unpopularity which has been made to prevail "of beautiful, yet useless and visionary theories" has so effectually stamped inclination that it has been difficult to establish sufficient courage to beard the lion in his den with an expressed conviction and theory that may become a target for caustic reply from the whole rank and file of the profession.

If you wish to continue popular, it would be a sad mistake to attempt to explain what recorded wisdom has said the human mind can not comprehend, thus no attempts are on record in this direction.

As students of the most important science created, to be consistent, we must either take up this study or say to the people that a knowledge of the principles, properties and laws of vital power are of so little use to us as physicians, who have studied the medical properties of drugs and became so familiar with the impossible, that we don't care to meddle with this subject. Allow me to assert that the subject of vital power, its principles, properties and laws are more easy of comprehension than the principles and laws in astronomical science.

More easily verified and demonstrated, and acquired in much less time.

The question may arise where to begin, what course to pursue, and what to include?

This is too large a subject to be presented in full in a medical journal. We will attempt to give a brief illustration.

We are first required to analyze the vital power, discover and determine what are the separate and ultimate and unlike vital properties. We are

required to determine the function of each vital property and the line of distinction, which may determine that one is not the other. What does each vital property do singly? What will any two do—or three do—with a co-relation to purpose? What are the laws through which such active vital properties execute the duties of life in health and disease?

When we comprehend this department there will be no further use for the ideal "active medical property."

Medical science is based on the laws of active vital properties.

Allow me to call attention to another erroneous term, viz., "active cause" of disease.

The cause of disease is not active, any more than a boulder on a railroad track is active as cause of a railroad accident. The cause of disease is not active—it is the vital power which is active.

Drugs are not active, and are without active properties, it is the vital power only which is active. Medicines have useful relations, but not active relations. Medicines are useful, because their presence affords cause for the vital power to act differently.

Medical literature has always confessed ignorance of the *modus operandi* of medicines. When we understand that medicines do not act, but are cause for vital power to act differently—in connection with a knowledge of properties and laws of vital action—we then are able to comprehend what is called the *modus operandi* of remedies. Vital properties are treated in medical literature more as a curiosity in Nature than a useful life ability, each in itself a part, whose several parts in function constitute the whole of life duties and execute the whole of life's duties.

Medical literature fails to establish lines of distinction which determines one vital property from the other.

Vital action, in relation to medicine, is pathological vital action. It is important to distinguish that vital action in relation to food material for constructive purpose is physiological vital action, although should that food material be expelled, rather than used, the act would be a pathological vital act.

Vital action in relations with material, or medicine, which can not be vitalized, is always pathological vital action.

Disease is pathological vital action. Medical literature informs us that the profession have no knowledge of the nature of disease—but they know how it appears. When we understand the function of the vital properties and laws of vital power we may then comprehend the nature of disease.

The ancient astronomer did not know the nature of astronomical changes—he knew how they appeared to his vision, but he could not com-

prehend the nature or law of activity which produced those changes.

When they discovered the true center of gravity, and demonstrated the laws of gravitation, the subject was illuminated and astronomy was a science.

In the medical department of erudition the profession have failed to comprehend even the source of the power, much less the properties and laws of activity. For centuries the medical profession have been trying to explain the action which produces medicinal effects and the activities called disease, expressed through the living human organism, as being due to some power not vital—very difficult to comprehend.

The effects of medicine are due to pathological vital action; functional disease is pathological vital action; organic disease is the result of pathological vital action.

Is it the duty of the physician to guide vital power or supply medical power or "active medical properties?"

Shall we study vital properties and laws of vital power, or shall we study medical power and "active medical properties?"

Have the profession any use for a knowledge of the active vital properties and laws of vital power? or is this department only a curiosity, which future generations may develop from pure inquisitiveness?

Shall a higher education be more of the same kind, or shall it be in a different direction? Shall we develop a higher education from the study of vital power, the active life principle, or shall it be in the study of a five years' college term, of the wonderful abilities of medical powers, "which, for the present, at least, it is impossible to explain?" says the eminent profession.

Shall the medical profession strive to preserve the dignity of a false education, or shall they make research to comprehend the principle, properties and laws of vital power which executes every act of life in health and disease?

Have the people any legitimate right to demand a more intellectual medical practice to aid in the preservation of human life?

Will the American press spread broadcast to the remotest corner of civilization a mention of the wonderful discovery of "active properties" in bacilli poison for the cure of consumption, and neglect to tell the people that the human family are dying each year by the hundred thousand from the want of a knowledge of the law of the living principle—vital power?

There is but one medical science provided in Nature, and that is based on the active properties and laws of the living principle. And before the next generation expires the doctrine of "active medical properties" will possess no more infatuation than we attach now to the charm power of ancient worship.

When the people realize the degree to which their lives are being jeopardized, they will rise up and demand schools which shall teach the principles, properties and laws of the vital power.

### THE HOSPITAL SHOULD PRECEDE THE COLLEGE.\*

By F. H. ORME, M. D., ATLANTA, GA.

PROF. I. T. TALBOT, in his excellent address before the International Homœopathic Congress, in summarizing the absolute requisites of a medical college suitable to the present time, includes "A hospital with at least one hundred and fifty beds," and "A dispensary capable of treating ten thousand patients annually." To emphasize the importance of these requirements is the purpose of this paper.

It would seem to be a work of supererogation to urge the importance of the hospital and the dispensary or clinique in the acquirement of an education for the practitioner. Such argument is surely not needed by those who are familiar with the advantages of these unequalled means of imparting instruction. Who, indeed, would gainsay or question them? It is well, however, to be reminded of what we know; and, as there are factors at work which tend to minify the importance of these advantages, it is worth while to keep attention well directed to the subject.

The time was, within the memory of at least the seniors of this body, when such requirements would have been excessive and unreasonable; but in all departments of learning, and in the progress of civilization generally, there has been such advancement that these exactions are not only reasonable but are positively demanded.

In what might be likened to the "stone age" in medicine, when men were their own physicians, seeking as do the lower animals what they were guided to by inclination or instincts—often to their ruin—(there is no greater fallacy than that instinct is unerring), there were of course no restrictions upon what a man chose to do for himself or his family. Students and self-constituted doctors were compelled to pick up knowledge as best they could—a little here and a little there—and little, indeed, and seriously questionable in quality it generally was.

As civilization progressed a period corresponding to the "age of bronze" was reached, when the art of dealing with the sick was specialized and centered in certain individuals. These were properly regarded as having peculiar qualifications for their vocation, and a pupilage under one of these, with a certificate of proficiency from the tutor, was the only warrant that could, with any show of reason, be looked for or required.

Later came the "iron age," with formation of schools or colleges of doctors who, in a lecturing

way, taught some of the knowledge that had been acquired from practice by themselves and others. These continued on, increasing their facilities, adding thereto illustrations and demonstrations until the best institutions—but only the best—were provided with opportunities for exhibiting cases of disease, with their treatment.

Now, however, in this glorious "age of steel" (not as exemplified by the lancet, which has had considerable rest), with the golden illuminations of Hahnemann, still better things may be expected; and, with the present facilities of transportation, no one who should aspire to the profession can complain if compelled to attend a college where the proper opportunities for acquiring a thorough medical education can be furnished. The argument that some poor, but worthy and ambitious, young man may wish to engage in the profession, who must content himself with inferior advantages, is met with the fact that he is not the only or the principal party to be considered. The good of the general community comes first. If one be not fortunate enough to be able to secure the best education, modesty, to say nothing of generosity and justice, requires that he should adopt some pursuit within his reach, while those who are able may prepare themselves properly for the responsible office of taking the care of human life in hand.

It is the just pride of our institute that it leads the van in the effort to elevate the standard of medical education. Not one of the sixteen homœopathic medical colleges which have representation in this body—not a homœopathic college in the United States—but makes the three years' graded course compulsory—thus being in the lead of other schools—and a four years' course of study is demanded of all who expect to receive a diploma from a homœopathic college. This is surely a creditable distinction. Let others follow the commendable example.

Without derogating from the importance, and especially the past services of oral teaching, it must now be admitted that in medical didactics the clinical demonstrations—the object lessons—are of the first rank. The principles, the science of medicine, with something of the results of different modes of treatment, may be taught in the ordinary didactic way; but the college that wishes to send out men qualified as they should be at this day, *must* be provided with ample hospital and clinical advantages; for it is through these that the *art* of practice is to be acquired, and without these there is no thorough preparation for the responsible duties of the practitioner.

Physiognomical presentations impress and inform the student or the physician more than any form of verbal description can possibly do. In the presence of disease we are instructed without words; we learn from the patient more than from the professional tutor. What we see we remem-

\* Part of Report to the Am. Inst. of Homœopathy.



ber better than what we hear. A flush upon the face, a stretched eye, a dilated fanning nostril, a sunken cheek, retracted lips—these are features that need no verbiage to depict. They burn themselves into the consciousness of the student. They awaken the brain and force themselves upon the attention as the most eloquent verbal portrayal will fail in attempting. They absolutely command attention and forbid forgetfulness. They need no note-book to preserve, for they are indelibly impressed upon the tablets of the memory. The brain imbibes these impressions, and stores them for use in the trying times that come to all engaged in our noble profession. Let these opportunities, then, be the most abundant possible. Let the hospital and clinique come well to the front as factors in the education of the physician, supplemented, of course, by the oral instruction of the expert who has had a long course of observation, and who can lecture the student upon the import of what he sees and will surely remember.

Were I asked for advice by a student wishing to select a college, I should not say, go to the city and the college in which I have most personal friends, or to the faculty that has the most eloquent lecturers, but go to the city and the college that is best provided with hospital and clinical facilities, where you can be brought face to face with disease, with its multiform conditions, and where you can watch its course and the effect of treatment—witness its success and its failure.

One defect in the general teaching of colleges is that students are not taught, as they should be, as to what is *not* curable—for there is much that is incurable. There are many cases of disease or impairment which can not be remedied by medicine. Surgery can relieve some of these—some are absolutely irremediable. This is a lesson which the hospital and the cliniques can teach. The student of *materia medica* alone is liable to imagine that because he is able, from his knowledge of drug pathogenesis, to watch the symptoms of his patient, that he can consequently cure him, and proper surgical or other measures are delayed or neglected. A proper knowledge of what is *not* as well as what *is* curable will prevent mistakes, which are woeful alike to the patient and to the reputation of the physician.

Is it not time to take a stand against the unnecessary multiplication of colleges, especially in places where ample hospital and clinical advantages, in the nature of things, are not to be had?

Our sixteen well-equipped homœopathic colleges, all provided with hospital and clinical advantages, could go far toward supplying the demand for physicians in this whole broad and lengthy land. And yet, behold! with the scores of existing institutions we find colleges springing up in nearly every community in which there are a few aspiring physicians, who are ambitious of having the prefix of "Professor" to their names.

Only in places in which there is at least one large hospital already established should a college ever be thought of, however great the apparent demand.

Should we have State legislation to effect this restriction? By no means! The function of the legislator does not embrace interference in matters in which private choice or private interest are concerned. But it is the glory of our profession, and especially of our school—our Institute—that we can and do, without encroaching upon private right, make every effort toward educating the people to make an intelligent selection and toward providing them with good material from which to select.

What, then, should we further do? I would answer, Let the Institute proclaim it as its deliberate decision that no attempts at organizing college faculties in places where hospital and clinical facilities do not exist can be approved by this body. Thus will be set another good example, the following of which will tend still further to advance and elevate the standard of medical education.

[NOTE.—A resolution in accordance with this last paragraph was adopted by the Institute.]

#### MEDICAL JURISPRUDENCE.

BY DAVID A. STORER,  
*Counsellor-at-Law.*

#### THE MONTAGU CASE—ON APPLICATION FOR RELEASE.

MRS. MONTAGU is serving a sentence of one year's imprisonment at hard labor, in the Derry (Ireland) jail, for the killing of her three year old daughter by the infliction of cruel punishment. Application was recently made for her release, on the ground that she is pregnant and about to become a mother.

The Medical Board appointed by the Court to consider this application reported adversely, saying that in view of her treatment of her other children the safety of her unborn child will be best secured by keeping her under supervision. They thus make the ground of the application a good reason for continued imprisonment.

This action of the physicians composing the board is noteworthy, as an evidence of fearless, impartial independence. In view of the social position of the prisoner—she being nearly related to a duke—the conclusion reached by these medical men reflects much credit upon them, as being free from toadyism. And that it was reached in spite of the strenuous efforts of the parish priest to shield her from the odium of her dreadful crime, is further evidence of manly independence.

If the Court which condemned her earned the

applause of the civilized world, this Medical Board is none the less entitled to share it.

#### SOCIALIST DEMANDS FOR SANITARY LEGISLATION.

We are naturally prone to assume any and all demands made by Socialists unreasonable and perhaps monstrous, and little consideration is given them.

The recent May Day demonstration of the Parisian Socialists, however, was the occasion for the production of a programme entitled to more than passing attention. It is an embodiment of ideas for which they ask the support of French workingmen, with the hope of obtaining favorable legislation.

Distinctly repudiating the Anarchists at the outset, this programme is for the most part identical with the scheme of reforms proposed by the last German Congress of Socialists at Erfurt, and includes certain sanitary reforms of reasonable shape.

In behalf of the children, these Paris reformers demand the establishment of school canteens at which children may obtain, either gratuitously or at reduced cost, a meat lunch between the morning and afternoon classes. They also insist that twice a year, at the beginning of winter and summer, shoes and clothing shall be distributed among the children who, by attending school, are cut off from the means of earning money for the purchase of such necessities.

It is also proposed that sanitariums shall be created for the children of workingmen, and that such establishments shall be maintained at the expense of the municipality or commune. Besides these asylums for sick children the workingmen want maternity hospitals and places of refuge for aged persons, or workingmen who are either invalids or temporarily out of work and without a fixed place of abode.

Free public baths are also among these published demands of the Paris workingmen; but they also think that public lavatories for washing the face and hands should be maintained throughout the city.

Still another demanded reform is the concession to working people of a gratuitous medical service and of pharmacies where prescriptions may be made up at reduced rates. The proposal is also made that legal advice shall be furnished free of cost in actions in which laboring men are interested.

A further demand is made, that municipal office-holders shall be remunerated at a rate equal to the maximum pay of workingmen, in order that there may not be excluded from the municipal administration the most numerous class of citizens, namely, that which has only its labor on which to live.

Sir William Blackstone said, one hundred and forty years ago: "The law not only regards life

and member and protects every man in the enjoyment of them, but also furnishes him with everything necessary for their support; for there is no man so indigent or wretched but he may demand a supply sufficient for all the necessities of life from the more opulent part of the community, by means of the several statutes enacted for the relief of the poor."—*Blackstone's Commentaries, Book I., page 131.*

In considering the Socialist demands above set forth, it must be admitted that those having for their aim the amelioration of the condition of the children—the sustenance, the clothing and the sanitariums are proper and just—for the best interests of the community are served by the education and physical well-being of the children. The methodical supply of food and raiment as a right is certainly as economical in the long run, and tends less to "pauperize" the assisted ones than the spasmodic endeavors to feed the hungry and clothe the naked by charity.

The same arguments apply in support of the hospitals, public baths and lavatories, and the free medical attendance as well; and a liberal construction of the legal maxim, that "for every wrong there is a remedy," would furnish the desired legal advice.

Most of the rights demanded by the Parisian workingman are already enjoyed, to a greater or less degree, by his New York brother, and, taken as a whole, they appear reasonable.

#### TORTURE OF SCHOOL CHILDREN.

A teacher in one of the public schools of Philadelphia is in a fair way to achieve unenviable notoriety for having administered cruel and unusual punishment.

The details of the affair, as published in the newspapers, are as follows: Mirella Milby and two other little girls, when the school was dismissed at noon, were observed by their teacher treading upon the heels of those preceding them in the line as they filed down-stairs. As a punishment, these delinquents were ordered to walk up and down a long flight of stairs in the school building twenty-five times. Mirella, after tramping up and down the stairs twenty-one times, became exhausted, and, sinking breathless upon the lower step, told her companions she could go no further. When she gave out one of her companions magnanimously made up Mirella's deficiency.

When finally dismissed, the children started for home as fast as their weary limbs could carry them. Little Mirella was completely fagged out, and required the assistance of her two companions. She was perspiring freely, an ashen pallor overspread her face, and she complained of pains in her head and spine.

Her little companions finally succeeded in getting her home, where she recovered somewhat,

and insisted upon returning to school for the afternoon session. Returning home from school at the close of the day, she complained of severe pains, which were gradually intensified during the night.

In the morning the parents, becoming alarmed, called in the family physician, Dr. J. H. Sargent, who at first believed the child to be suffering from spinal meningitis. Later, however, symptoms of typhoid appeared and rapidly developed. Every effort was made to save her life, but blood poisoning set in, and she died within seventy-two hours of her enforced exertions.

That the teacher intended harm to her little charge no one can believe. But a great lack of judgment certainly was shown. If the misbehavior merited punishment, the old-fashioned use of the rod would seem preferable. Public sentiment is against it, we know, but the writer is old-fashioned enough to remember and revere the judiciously wielded birch.

#### COST OF EXPERT TESTIMONY.

Criticism of lawyer's fees is universal. A glance at the figures required to express the cost to the people of some of the expert testimony in recent cases will lead to the belief that one of the other learned professions dare to charge round fees.

In the case of *People vs. Carlyle W. Harris*, convicted of the murder of his wife, the bill of the chemical expert who made the analysis of the contents of the dead woman's stomach is \$5,000 for that service. A prominent physician, who was a witness in the case for the prosecution, charges \$1,500 for his services; and other bills from expert witnesses have been filed which bring the total cost of the expert testimony in this case for the people up to the tidy sum of \$9,000.

The bills of the medical experts who testified for the prosecution in the E. M. Field trial aggregate \$4,000. No objection appears to be made to these charges, nor is it the purpose of the writer to suggest any. But these figures prove that lawyers are not the only professional men who earn fat fees.

#### LEGISLATIVE INTERFERENCE WITH THE RIGHTS OF PARENTS.

The constitutionality of the statute under which the Society for the Prevention of Cruelty to Children derives its powers, is in a fair way of being decided in the case cited below. Nearly everybody knows that this society interferes to prevent the acting, singing, dancing, etc., in public, for hire, of young children—even where the parents and guardians are consenting parties.

Little Mildred Ewer, seven years old, a granddaughter of the late Rev. F. C. Ewer, D. D., of this city, is evidently a very graceful dancer, and has been exhibiting her skill at the Broadway

Theater, with the full knowledge and consent of her mother. Commodore Gerry, of the society above named, caused the arrest of Mrs. Ewer for allowing her daughter to dance there, and she was a prisoner at Jefferson Market Police Court on June 16th. Little Mildred, or "*La Regalancita*" as her *nom de théâtre* is, accompanied her mother.

The affidavit upon which the warrant was issued stated that on Monday night last Mrs. Ewer allowed her little daughter Mildred to perform at the Broadway Theater, knowing that to be a violation of law. Continuing, the affidavit stated that Regalancita came on the stage in a white dress, cut low in the neck and trimmed with purple. The orchestra played a quick waltz and the child danced, stood on her toes, kicked high into the air, at the same time striking a tambourine and occasionally falling to her knees in the dance. She received an encore, and on the response danced a polka, twirling on the toes, bending and kicking. That both dances were followed by applause, and several floral pieces were sent up—and that La Regalancita was on the stage, in all, about ten minutes.

The affidavit did not state that a doctor waiting in the wings, examined the child when she came off and found her pulse high, but no injurious effects—as the defence alleged. On the insistence of Counsellor Dittenhoefer for the defence, the affidavit was made to say, that the place was respectable.

Mrs. Ewer showed a letter from Dr. Thomas J. Morton, of Philadelphia, the doctor for the Children's Society in that city. It said that he had carefully examined Regalancita after her dancing, and was sure it did not hurt her. It was play for her, and therefore a good thing.

The case was taken to the Supreme Court, by writ of *habeas corpus*, before Judge Beach, the same day. After the writ was served, the Court allowed Mrs. Ewer to go on her own recognizance, the prosecuting society consenting. Commodore Gerry stated the case to Justice Beach and said that former Judge Dittenhoefer informed him that he desired to make this a test case, and would carry it up to the Court of Appeals, and he was willing it should be done.

Judge Dittenhoefer remarked, that there was serious doubt as to the constitutional right of a legislature to say that a child should not earn its living in a respectable place and in a manner in no way injurious to it.

The final determination of this case will be watched for with much interest.

#### RESPONSIBILITY OF PHYSICIAN.—GRATUITOUS SERVICE.

A recent decision of the Court of Appeals, in the case of *Henry H. Du Bois, respondent, vs. William M. Decker, appellant*, fixes responsibility



of surgeon, where services are rendered either gratuitously or at the request of a third party.

On the 1st of December, 1889, Du Bois, the plaintiff, undertook to jump upon an engine of the Ulster and Delaware road, in the city of Kingston, and in so doing slipped, and his left foot was caught by the tender and a portion thereof crushed. Being destitute, he was taken to the almshouse, where he was treated by the defendant, who was one of the city physicians having the care of patients therein, and who was employed for that purpose. Thereafter, and on the tenth day of December, he amputated plaintiff's leg above the ankle joint, and six or seven days thereafter, gangrene having set in, he again amputated the leg at the knee joint. After the second amputation the leg did not properly heal, but became a running sore, and at the time of the trial the bone protruded some three or four inches.

Evidence was given upon the trial, from which the jury might find that the bones of the foot were so crushed that immediate amputation of the injured portions was necessary, and that the appearance of gangrene was in consequence of the delay of ten days in the operation; and that in the second operation, the defendant neglected to save flap enough to cover the end of the limb and bone, and that the subsequent protrusion of the bone was owing to this neglect.

The question of defendant's liability consequently became one for the jury, and they gave a verdict for the plaintiff.

The opinion of the Court of Appeals, affirming the judgment, was given by Justice Haight, from which we quote:

"We are aware that the surgeon claimed to have waited ten days before operating, for the purpose of seeing whether the foot could not be saved, and that a physician and surgeon will not be held liable for mere errors of judgment. But his judgment must be founded upon his intelligence. He engages to bring to the treatment of his patient care, skill and knowledge, and he should have known the probable consequences that would follow from the crushing of the bones and tissues of the foot.

"In submitting the case to the jury, the defendant asked the Court to charge, that 'if the plaintiff did not obey the defendant's instructions and this contributed to an aggravation of the injury, the plaintiff can not recover.' The Court declined to charge in the form in which the request was put, and an exception was taken by the defendant.

"It appears from the testimony of the defendant, that after the second amputation he dressed the stump and put the plaintiff in position by elevating the limb so as to prevent hemorrhage and too much pressure upon the arteries; that the plaintiff did not keep in the position in which he was placed and got his leg to bleeding, and

that he presumed that this bleeding interfered with the healing of the limb. It also appears, that some time after the second amputation the plaintiff refused and neglected to take the medicine that was left for him by the defendant, and that subsequently, after the defendant had ordered him to be removed to another room so as to avoid liability of contracting erysipelas from a patient who had been brought to the almshouse afflicted with that disease, he left and went away.

"Whilst the removing of the limb from the position in which it was placed may have produced the bleeding, and thus, to some extent, impeded the healing, and his going away at the time that he did may also have further aggravated the difficulty, these facts would only tend to mitigate the damages, and would not relieve the defendant from the consequence of previous neglect or unskillful treatment. As to the prescription, we are not told what it was or what it was for, and the jury was, therefore, unable to determine whether or not the condition of the patient would have been materially changed by its use.

"The request to charge, as we have seen, was to the effect that if the plaintiff did not obey the instructions, and this contributed in aggravation of the injury, the plaintiff can not recover. This was too broad if the jury found that the defendant was guilty of malpractice prior to the disobedience complained of.

"In the case of *McCandless vs. McWha* (22 Pa.), Lewis, J., in delivering the opinion of the court, says: 'A patient is bound to submit to such treatment as his surgeon prescribes, provided the treatment be such as a surgeon of ordinary skill would adopt or sanction; but if it be painful, injurious and unskillful, he is not bound to peril his health, and perhaps his life, by submission to it. It follows that before the surgeon can shift the responsibility from himself to the patient, on the ground that the latter did not submit to the course recommended, it must be shown that the prescriptions were proper and adapted to the end in view. It is incumbent on the surgeon to satisfy the jury on this point, and in doing so he has the right to call to his aid the science and experience of his professional brethren. It will not do to cover his own want of skill by raising a mist out of the refractory disposition of the patient.'

"The defendant moved to dismiss the complaint, upon the ground that it failed to show a contract relation between the parties, and that no facts were alleged showing it to be the duty of the defendant to treat him in a skillful manner. This motion being denied, the defendant asked the court to charge that, as the defendant treated the plaintiff gratuitously, he is liable, if at all, only for gross negligence, which was refused.

"It has been held that the fact that a physician or surgeon renders services gratuitously does

not affect his duty to exercise reasonable and ordinary care, skill and diligence. But we do not deem it necessary to consider or determine this question, for it appears that the plaintiff's services were not gratuitously rendered. He was employed by the city as one of the physicians to attend and treat the patients that should be sent to the alms-house. The fact that he was paid by the city instead of the plaintiff did not relieve him from the duty to exercise ordinary care and skill."

#### DELIRIO-HYSTERIA.

BY X. A. G. MUSSAWWIR, M. D., ZAHLEH,  
MOUNT LEBANON, SYRIA.

**A** RAGO, the French physiognomist, while on his deathbed, and speaking about the animal magnetism, said: "He who believes the impossibility in anything besides the mathematical sciences is not wise."

Even the scientific men of recent times, most of them, deny many of the wonderful achievements of man, such as his ability of reading the thoughts and discoveries of hidden things, his capability of prophesying future things, considering these to be due to imagination or fictitious, because they find great difficulty in applying such strange deeds to scientific bases and rules, while the common and ignorant people very easily believe them, regarding them to be beyond understanding and incomprehensible.

But the scientists of to-day are occupying most of their time in discovering a basis to all this and to an interpretation by natural laws.

Many of them have discovered and referred all these to nervous and hysterical diseases, and the more they study the more they find the causes, and hope the future to unfold what was hidden and undiscovered.

And here is a case of hysteria very peculiar in itself, not with regard to its symptoms, but in respect to the ability of the patient to prophesy and foretell points that were utterly unknown.

A man, nervous in temperament, delicate and weak in constitution, about 37 years of age, had, eighteen years before I saw him, convulsions, which lasted for more than three months, and which, as I judged from the description, were hysterical. Had no sickness before that. Convulsions were very mild after the three months, coming like attacks of syncope and lasting for a few minutes.

Six years after that time his father died from apoplexy, and the patient was attacked with fits of hysteria for eight days, during which he did not taste any food. These attacks kept on growing milder and milder, until two years from the date I saw him, when they stopped.

The father had a strong constitution, only in

the last years of his life he had attacks of apoplexy and paralysis, which came twice or three times, producing his sudden death.

His mother enjoyed good health all through her life, but since her husband's death had severe dysentery complicated with extreme pain in the stomach, which remained as a sequela.

During the eighteen years of his married life he had many children, who all died with convulsions before reaching one year of age.

The patient is bright, sharp, fine in character, gentle, speaks four different languages fluently, very firm and steadfast, especially in business, very irritable and sensitive, but patient in misfortune.

He lost a case that occupied his constant attention, which was under trial for more than five years, and the moment he lost it he fell into delusions and aphonia, and that was the beginning of his fits. At that time he was at Alexandria, then removed to Cairo, where I was called. The moment I went in I saw him sitting in bed, staring as if looking at something, could not talk, and he had divergent squint in the right eye.

I ordered wet cupping on his back and cold water effusion on his head. As soon as the cold water touched him he fell into spasms; I asked his friends whether he had these spasms before, they answered that he had, so I concluded that the patient was hysterical; the fit lasted a few minutes; the patient awoke to consciousness, recognized his friends, wept, then fell into delusions. I advised repetition of the cold water or ice bags over his head.

The next day I found him in the same condition as at first. Comatose, but speaks and demands revenge from a certain person.

The points most important in this case were: the patient took no food for more than fifteen days; that as soon as cold water touched his head the delusion was over for a few minutes and then returns.

That he used to be relieved on taking a purgative.

That on taking any food whatever, even broth or a little milk, he felt uncomfortable.

On the 21st of June he had severe epistaxis, which was repeated thirty-seven times from that date till the sixth of August.

This great loss of blood, with the many discharges after purgation, and abundant urination, did not have much effect on his constitution, and that makes the case peculiar in itself.

With all the delusion he had, he used to fix the date of his sickness, the hour and minute, to recognize the place and the name of the hotel; he used to talk with all the friends around as one person, to understand their conversation. His memory was striking, as he used to date all that happened to him before his sickness; his acts showed as if he was in two persons and had two

beings, for while in consciousness he used to forget everything that happened while in delusion, and *vice versa*. Very weak in consciousness but strong in delusion.

He will refuse broth in delusion but smokes and takes milk, and in consciousness the opposite and many other things that proved his two beings.

On the 29th of July, his state was changed from simple delusion to the true somnambulism, and he used to close his eyes and address one person and turn his face to the left between listening and answering, then to awake either into consciousness or into delusion, and in the last condition he used to reply to every question put to him.

The next day, while in delusion he said, "I have killed the man" (the one he wanted to take his revenge from), and to-morrow I shall leave by the express for Cairo.

At the same time, on the following day, he fell into hypnotism, and began to name the stations from Alexandria to Cairo, until reaching Cairo at the same time that the express reaches there. He then opened his eyes and began to salute his friends. All through his journey he perspired abundantly. This took place any time he fell into somnambulism, which he had several times in a day, and, what is more strange, his ability of reviewing all that occurred to him in his life, fixing the date of every case and to date his sickness; all kinds of food he took, the doses of the medicines he took, how many pounds of snow were applied to his head, the date of prescribing every medicine. He used to foretell what would occur to him in the day following. For example: The next day, at the same hour and minute, "I shall have severe epistaxis," the amount of blood, and all will come true.

He used to foretell this even two days before it occurred.

One day we asked him when he would be cured. He answered, "The 14th of August," and followed, "and I shall go into a deep sleep." By sleep he means the consciousness, because he said it while in delusion.

In the evening of that day I called with some friends and found him sleeping and muttering. We understood that he was thanking God for his cure that shall be completed on the 14th of August, and then said in French: "O, God, to-morrow is a very bad day, and I shall be displeased!"

On the next day, Wednesday, he had the displeasure he foretold, thus:

A relative whom he disliked utterly, living in Alexandria, came that day to Cairo, and at six o'clock in the afternoon (and this was the same time he foretold the day before) this man came in to visit him while he was in consciousness. The moment he saw him he was much agitated and angry, and demanded his friends to close the door and never let him in. Then fell into sleep and began to curse the man and to try a case

that was between them, pleading with a very loud voice and great strain.

He mentioned in that case points that were entirely unknown, even to his family.

The next day I heard him saying in his sleep, "At four o'clock this afternoon I shall laugh a great deal, but am afraid I shall be displeased at six o'clock."

I advised those present by every means not to disturb him. I returned in the evening and found the same man he disliked sitting on the balcony of the next room. I came in and heard him speaking in French: "Did I not tell her (his wife) that they are on their way, and left at 6:18 in the afternoon and are coming here? It takes them fifteen minutes on the way, and they will be here six minutes from now." I asked and found out that the two men reached there five minutes before I came in. Then the patient fell into delusion, and went on to say: "I fixed the time the one left the hotel and the time they met in the café. Could they not prevent the causes?"

I then asked him: "What are their names?" He answered: "I do not like to pronounce them." He continued, "And what stirs me the most is, that one of them says that I have a devil, and the other that it is all pretence! Who can fast eighteen days and lose sixty-five pounds of blood?" Then he was excited, until we thought he could break iron.

All that he said was proved to be true, for the two persons on the balcony were all discussing the same opinions he stated about his illness.

Were I to mention all the points in connection with this case it would fill pages.

We finally kept on awaiting the date of his recovery, which he fixed.

On Saturday evening his foretelling was fulfilled, for at six o'clock he fell asleep and began to talk with his friend and call him my father, and bid farewell to his sickness for one hour, then he fell silent and had spasms, his chin shivering, his eyes weeping and he was perspiring all the time. Then he fell unconscious, finally he opened his eyes but could not talk. Then awoke, and from that time he completely recovered.

Now let us examine this case carefully and see whether the symptoms were those of true hysteria or whether they are simply a pretence and deceit from the patient himself, for hysterical men are very apt to exaggerate and claim things that are not true.

(1.) We will examine the fits and see whether they are due to true hysteria or not.

(2.) The delusion; was it true that he could not see persons but in one form and shape, and hear them speak one voice and tongue.

(3.) His foretelling, was it true or false. Then to discuss and investigate whether this can be interpreted by natural science or is something beyond understanding.



There is no doubt that the man is hysterical from his history and from the experience of other physicians who attended him formerly.

The patient had anæsthesia in some places of his back, especially in a small spot below the left scapula, also the fits are, undoubtedly, the fits of hysteria which took place as soon as cold water was applied, either by applying it over his head or by the *douche*, he had, besides, symptoms of general fever and local nervous fever which he complained of in the region of his stomach and his heart, and the existence of painful points on the scalp and exostoses as large as a hazel nut in the left temporo-frontal region, also the perspiration after every fit, his dry tongue furred with a brown, dirty layer, his disgust for all food inside and the most important of all is the epistaxis, and the *tin-nit-us aurium*.

These points all denote and prove the certainty of hysteria; that it was not at all a pretence.

Looking next to the delusion and consciousness, we find that our judgment is a great deal more difficult than on the other points, because they are *subjective* symptoms, but looking further we find that the case is not void of *objective* symptoms, which the physician observes, as, for example, the protrusion of the eyes and dilatation of the pupil, the divergent strabismus of the right eye, the distinction of all colors except the *blue*, which he saw *black*, and the ashy color to be *white*, but in consciousness he used to distinguish all colors.

He could not distinguish the hair when brought before him, and used to see all people, whether bearded or not, to be shaven like his foe the un-bearded, while he could see the minutest things, as flies and ants, all these tend to justify the patient from any suspicion of pretence.

With regard to his foretelling and prophesying, we must be more careful in discussion.

These are of three kinds—(1) To tell things known to him before his illness, and (2) to tell things suspected of being known or not during his sickness, and (3) things that were expected.

The points that were known to him were, of course, the events of his life, and hysterical people often rave about such things.

Things uncertain, whether known to him or not, are his fixing the exact time of the happening of events, his judgment of the color of the cow whose milk he used to drink, her age and the age of her offspring, the presence of the two men in the house, his statement of the doses he took, kinds of food he ate, quantity of blood he lost, and everything concerning his sickness. Kinds of broth he took, with date of day, hour and minute he used it.

The things expected are his foretelling of his displeasure, of attacks of epistaxis, and of his recovery, with the exact date. The first two may be doubted, but the third can not be. These, with all the other points, tend to show and prove

the truth of the diagnosis, and that there was every reason to believe that it was not a case of pretence.

Now we go on to the explanation of these points, and it is very easy to understand and explain them when we recollect that the *memory* is very sharp with hysteric men, and that the statements of all that happened to this patient before his sickness, and that occurred to him during sickness, are nothing but the power of his sharp memory and there is no difficulty at all in explaining that; but the difficulty is in the explanation of his telling beforehand things which were utterly unknown, with the exact time and hour! Perhaps natural science may help us in explaining it.

It is well known that for every sensation there must be the following:

- (1) A terminal irritant.
- (2) A conductor or communicator.
- (3) A receiver of conduction.

When we see anything it is the rays radiating from the object and falling on the retina or optic nerve. The *object* is the agent, the rays of light are the conductors and the optic nerve or retina the receiver. If one of these agents is absent, sight is not accomplished.

Therefore, it is possible to strengthen one of these agents, so that one will become able to hear and see things he usually does not see or hear from the weakness of one of these actors.

It appears from our study and experience that it is possible to strengthen one of these actors, or all, as by means of electricity we become able to transmit sound from one place to another, and thus one can hear his friend speak while very far off, out of sight and intervened with whatever may destroy his voice, as in the telephone, by strengthening the conductor while the agent acting, or terminal, and the receiver are the same.

This proves that if it was possible to strengthen the receiver while the terminal and conductor are the same we would attain the required point or result, and we all know that electricity is everywhere around us in the air, can not be hid or intervened, and that everything in this universe has an effect carried through electricity, or another power we do not know, in every direction, though we do not feel it always, from our weak comprehension.

We also know that in some diseases, and in some cases, the nerve will become more sensitive, and then man may see pictures of people, hear them talk though very far off, and on this ground our friend, the patient, may have seen the watch and knew the color of the cow as if printed upon his brain. And in this manner will be explained his foretelling of his coming anger and sorrow.

His foretelling of the epistaxis is more easily explained than the other points. For, as he used to say, he saw something red before the hemor-

rhage, even some hours before. Therefore he may either continued to see the redness until the hemorrhage took place; or that his nervous faculty became familiar to the changes preceding an epistaxis, which changes denote and point to it, and that is common among people who, for example, are disposed to headaches. They may foretell the coming of the pain even some hours before, from some preceding sensations peculiar to it. Now we go on to explain his foretelling of his cure and the date of it.

It is not difficult to understand that, especially in these days by the new method called *suggestion* and which Shirkon and his followers used to heal patients with nervous diseases, for after they are hypnotized they will become subservient to the will of the hypnotizer and do whatever he commands, and think whatever he leads them to think. In this case, the patient himself, by his two personalities he showed in his two states of delusion and consciousness was his own spontaneous hypnotizer.

#### BICYCLE RIDING FROM A MEDICAL STANDPOINT.

By T. H. CARMICHAEL, M. D., GERMANTOWN, PA.

A RECENT estimate, which is believed to be conservative, places the number of bicycle riders in the United States at 200,000.

As a form of exercise its growing importance makes it a subject for discussion by the medical profession, in order that its advantages and disadvantages may be understood and its indiscriminate use and abuse prevented.

The wheel has penetrated all parts of the civilized world, and is entitled to a permanent place among the wonderful achievements that mark the close of the nineteenth century.

Its devotees are to be found among the young and old of both sexes, and to them all it is a fascination and a delight.

In a very brief manner I propose to call attention to some of the advantages and disadvantages of the sport.

In riding a wheel correctly the whole muscular system is exercised—the muscles of the trunk and upper extremities in the act of balancing and the extensors and flexors of the leg in the act of propulsion.

As the pedals are worked by ankle-motion, it follows that the leg muscles are used in a manner that tends to their symmetrical development, while those of the foot are strengthened.

Riding in the erect position on level roads or up moderate grades causes a gentle and uniform expansion of the chest-walls, with deepened respiration. The heart-muscle is stimulated, and, with the increased circulation through the various organs, comes the general sense of well-being that is at once the charm and benefit of the sport.

Its value is enhanced by the fact that it is an open air exercise; that it needs no extra time, but, in many cases, saves time; that it is not spasmodic and for odd moments, but that patients may incorporate it into their daily lives riding to and from their business occupations, and (what is even more important) that it is not so likely to be abandoned during middle life, when exercise is so much needed, for it is so enjoyable a sport that many of the riders of to-day will continue to use the wheel during the next twenty or thirty years.

In the wheel, therefore, we have an agent that may play an important part in the rôle of preventive medicine. Especially is it applicable to that large class of diseases characterized in middle life by interstitial changes in various organs, such as lungs, liver and kidneys. Many of these cases can be diagnosed in advance, as they usually give evidence in early life through their overfondness for nitrogenous foods and a tendency to myalgia in various parts—these myalgic pains being usually due to faulty elimination of waste material and its consequent irritation. In many instances such patients lead sedentary lives, and thus aggravate their condition.

The exercise of cycling helps these cases by supplying the oxygen necessary for the elimination of the waste material, and by so stimulating the excretory organs that they are enabled to perform their functions in a normal manner, and thus prevent the gouty manifestations of middle life.

In the equally large class of nervous diseases bicycle riding is just as efficacious. This subject has been ably discussed by Dr. G. M. Hammond in an article on "The Bicycle in the Treatment of Mental Diseases" in the January number of the *Journal of Nervous and Mental Diseases*.

Varicose veins have disappeared after a course of riding, several cures having been reported.

In chest troubles, especially lack of expansion of the lungs, it is very valuable—more so than most forms of calisthenics, because the cyclist usually seeks a healthful suburban atmosphere, and the lungs are invigorated by the pure air.

The too rapid accumulation of fat can be readily controlled by taking long rides, and, at the same-time, abstaining from liquids.

On the contrary, moderate use of the wheel, avoiding hill-work and freely satisfying the thirst produced by riding, usually produces a gratifying increase in weight.

The advantages of bicycling apply to both sexes. With loose fitting garments and a proper mount, refraining from riding during the menstrual period, moderate use of the wheel will do much to maintain good health in women.

I have a patient who has used her wheel with marked benefit up to the fourth month of gestation, and continues to do so. A friend of hers in

another city used her wheel almost daily until the end of the fourth month, when propriety suggested that she abandon it. Obstinate constipation set in with stiffness and pain in the muscles. She resumed her wheel with entire relief of these symptoms and continued to ride until advanced gestation rendered it dangerous for her to risk the effect of a probable fall. Labor was much easier than with either of her former children.

The disadvantages of cycling result from several causes, prominent among which is faulty construction of the machines, especially the saddle.

Bicycles weigh from seventeen pounds for a light racer to fifty-four pounds for a heavy road machine. For the average rider the proper mount is one weighing from thirty-seven to forty pounds, with pneumatic tires or other devices to absorb vibration; among which we would specially mention the invention of Dr. J. H. Whiting, of Chicago, consisting of a series of springs encased in rubber and placed between an inner and outer rim.

From the physician's standpoint the most important part of the machine is the saddle. The great majority of these in use are of faulty construction, consisting of a piece of leather tightly stretched in hammock style over opposite ends of a spring with no points of support for the ischial tuberosities, but causing the weight of the rider to fall on the soft parts. The injurious effects of this arrangement are felt in various forms of pelvic congestion, irritation of the prostate gland and hæmorrhoids.

Two cases of deep-seated perineal abscess, due to this cause, were treated by a friend of the writer, and many cases of irritable prostate have been reported.

It is gratifying to know that saddles of better type, such as the Dr. True Hygienic, the Pneumatic and the Pattison anti-perineal are coming into more general use. The latter saddle contains a large cleft in the center which may be pulled down and widened by a short strap, thus causing a depression for the perinæum on the principle of the McClellan army saddle which became so popular in the late war.

Ill effects are produced on the heart muscle by improper position in riding. Sitting far back with the body bent forward is a favorite method among racing men. It causes the heart to work at great disadvantage, and tends toward hypertrophic changes. In addition it cramps the chest muscles and develops round shoulders.

The abuse of riding causes disease. What is known as scorching, or the attempt to ride a certain distance in a definite time over all kinds of roads should be discouraged. In such runs the pace is usually set by a good rider and all are ambitious to maintain it, and the weaker ones suffer from overexertion.

It may not be out of place to mention the

proper treatment for the bad effects of a ride. Indeed, this is simply the standard treatment, a sponge bath followed by thorough rubbing down with witch-hazel for the muscular soreness. If the joints remain stiff, arnica oil used freely will be found efficacious. Internally a few doses of rhus tox., arnica or hypericum will aid materially in restoring the normal tonicity.

Patients should be cautioned against riding immediately after a full meal, nor should they dismount after a long ride and at once eat heartily. In either case digestion will be arrested.

We have thus briefly indicated a few points in connection with cycling as an exercise.

As the result of several years' experience, I earnestly recommend the wheel to my professional brethren and sisters also. It is an infallible remedy against the blues. It is an agreeable rest when fatigued by prolonged carriage riding and the routine of professional duties.

Rise early, sip a large cupful of bouillon made from a good beef extract to which a teaspoonful of bovine has been added, then mount your wheel and ride five or ten miles, and you will return to your office with a fine appetite for breakfast and a capacity for work to which you otherwise would have been a stranger.

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### CLINIQUE.

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#### CARDIAC TONICS AND STIMULANTS.\* A CLINICAL LECTURE DELIVERED IN THE HAHNEMANN MEDICAL COLLEGE AND HOSPITAL OF CHICAGO.

BY A. K. CRAWFORD, M. D.,

*Professor of Theory and Practice of Medicine.*

HAVING in this course been carried through the phases of the acute and chronic carditides and the treatment for the same, it will be time well spent if we consider during this hour therapeutical diagnosis, and the tonics which you will be called upon to use, after the failure of compensation, in your patients suffering with organic heart disease. It is a trying time and a discouraging time for the doctor, because he sees that, eventually, the disease will win the fight. However much you may desire to treat all diseases in a strictly homœopathic way, you will find there are times when drugs can be judiciously used for a mechanical, chemical, antidotal or purely physiological end, and, in like wise, do we occasionally prescribe for diagnostic purposes.

This is not new, but it has a certain allurements about it. If it can be proven to be a truth, then it brings *medicine* close upon the border line of an exact science. It requires more than a superficial knowledge of a drug, a no less understanding of the diseased economy, and a definiteness of prediction of the drug effect considerably

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\* *The Clinique.*



more reliable than what "old prob." furnishes regarding the weather.

Of course you all remember the ancient mode of diagnosing typhoid fever. "When in doubt, give the patient a good cathartic. If he dies, it is typhoid; but if he lives, it is not."

It was apparently upon this same principle that a good old friend of mine was treated for some occult heart affection. The chief phenomena of it pointed to angina pectoris. For what special reason he was given digitalis, tincture, I know not, but that was the prescription which was ordered with ever increasing doses. When he had reached forty-five minims of the drug per diem he lay down on his lounge one day because he felt tired, and in five minutes was dead. The ventricles were found empty upon post-mortem examination, and no change of structure was visible, either intra or extra cardiac. The cumulative action of this powerful drug was seen in the tonic spasm of the heart muscle, and a life was cut short through a misconception of the case and of the latent force of the remedy used.

But supposing a case presents itself which upon the first examination yields the signs of cardiac hypertrophy, a systolic mitral murmur, scanty urination, and just a trace of albumen. Is the breathlessness of which he complains due to an exhausted right ventricle, or to uræmic poisoning? Is the cardiac condition secondary to a contracted kidney, or is the kidney intact, and the albuminuria due to the lowered tension of the renal circulation through dilatation and weakening of the cardiac muscle?

The pulse-tracing does not correspond in height



to the strength of the heart's action, and points towards an arterio-sclerosis, which goes with renal degeneration. It shows that the pulsations are eighty to the minute, with a low apex and a flattened top. Now, before a sample of urine can be obtained and thoroughly tested, chemically and microscopically, the source of this albumen can be determined by the administration of a remedy like strophanthus. If it be from renal disease no effect will be obtained, but if due to the heart affection the albumen can be, at least temporarily, wiped out. In this instance the result of the medication was negative, and, therefore, diagnostically, threw the brunt of the trouble upon the kidneys, which, indeed, was verified by the urinalysis.

The case was one far advanced in renal cirrhosis and terminated in uræmic coma and death.

So can a degree of refinement in diagnosis be reached in certain unusual neurotic cases by the administration of muscarine or atropine. The one induces cardiac depression, Brady-cardia, a

sluggish blood current, and, if pushed, paralysis of the heart. Hence, homœopathically, it is curative in similar diseased states. The other increases cardiac action, both in force and rapidity, and brings the nervous power of the organ into highest tension. Therefore it is the direct antagonist of the first; so much so that, in experiments upon animals, the fatal issue from an overdose of the one can be averted by administering the other.

With these points clearly in mind, as well as having a clear mental picture of the complicated nervous apparatus of the heart, the employment of the one or the other of these remedies will expose the faulty portion of the mechanism, and will make a diagnosis possible, which otherwise could not be made.

Of course every layman knows that digitalis is a great remedy for heart disease, and a large proportion, certainly, of practicing physicians have the one coupled with the other in their minds just as closely as "bread and butter" is associated in the mind and stomach of the school-boy.

It assuredly is a grand cardiac drug, but it is not the only one, as you well know, nor is it the one which is most frequently called upon by me in the treatment of acute and chronic heart disease. Its use in the acute inflammation of the organ is decidedly limited, and its beneficial use in the chronic diseased state is also quite contracted.

Sometimes we have need of its influence when the heart is too boisterous in its action, in consequence of a sudden inflammatory onset or intense nervous strain in an old cardiac case. If such a condition is not readily and quickly controlled the heart may do itself untold mischief, and it is true that here digitalis can be employed like a military mandate to restore order in the ranks.

The digitalis pulse is unique. Its great distinguishing feature is dicrotism, and this is an indication for the remedy when the dicrotism is so incipient that the finger can not detect it, and too when the pulse is hyper-dicrotic and you can actually see it. The sphygmograph likewise shows the absence of the first and second tidal



waves. There is written on the blackened paper simple up and down lines, appearing like a large pulse and a small pulse alternating. There is but one cardiac pulsation for each two waves, and when the second is sufficiently accentuated, the finger feels the sensation of a back stroke in the artery.

When the heart is beyond all hope of repair, when dilatation is fast usurping the place of com-

pensating hypertrophy, when the balance between the arterial and venous systems is lost, when oedema is setting in and ascites is sure to follow, and when the urine is growing more and more scanty, then digitalis is our chief reliance. It will not cure the case; but it will frequently give the patient some respite from the distress occasioned by the circulatory stasis, and thereby prolong life. For a few years past we have been employing an infusion of the drug in this class of patients instead of a tincture. A fresh infusion is made from the leaves of the plant just as the case requires it, and the dose is commonly a tablespoonful. This mode of giving the drug appears to have all the good effects obtained through the use of a concentrated preparation, and lacks the dangerous element in the other from cumulative action.

Other remedies have been pawned off on the profession as possessing equal power over the circulatory apparatus with digitalis. Adonis vernalis and convallaria majalis are among these, but in my hands they have proven simply useless; nothing has in any wise rivaled the old stand-by until, a few years since, my attention was drawn to strophanthus, and even this is not the all-powerful and reliable drug in cardiac disease that digitalis is.

While it is undoubtedly safer, it is at the same time less trustworthy. The effects obtained in one case will not warrant the assurance that you will obtain it in another. Nor is this due to the difference in various pharmacists' preparations. Out of the same bottle the effects will not always correspond in different cases.

It is a remedy which has never shown any evidence of cumulative action. It corresponds with digitalis in being a cardiac tonic, increasing the systole, and decreasing the rate of speed. It has, likewise, to a less extent than digitalis, an influence over the blood vessels. This must be the case, theoretically, else Fraser must be wrong in attributing to it diuretic properties. I will endeavor in the following lines to show that it does, practically, affect the blood vessels as well as the heart.

The case of a young lady might be cited, who had an old mitral lesion following upon an attack of articular rheumatism a few years ago, but who had suffered little inconvenience from it until prostrated with *la grippe* this past winter. Then shortness of breath, pallor, debility, amenorrhœa and inappetency all seemed heaped upon her at once. A relapse of the grippe made the conditions doubly worse, and there seemed little to hope for.

Telegrams came urging an immediate consultation, as it was a desperate case. Upon arriving there, late the same day, I saw that the attending physicians had not drawn upon their imaginations nor shown needless alarm.

It was one of the most pronounced cases of *delirium cordis* it has ever been my lot to witness. The heart had almost literally "gone to pieces." The rhythmic apparatus certainly had, and the poor organ was beating itself incoördinately and insanely against its confines. There was no use trying to count its throbs; such a thing was an impossibility. Neither could they be counted by the sphygmograph. There is occasionally an attempt to produce a pulse beat,



but for the most part it shows only an erratic tremor.

This was a case in which palpation conveyed more meaning than auscultation. For, in addition to the tumultuous action seen and heard, the touch distinguished the *purring thrill* of a valvular incompetence.

The most distressing symptom present was incessant vomiting, and when nothing remained in the stomach a most significant hiccup took its place. This symptom was not to be relieved by any gastric remedy in the materia medica; the best of them had been tried, and without effect.

If that heart could not be gotten out of its *delirium*, then the emesis would continue to the end—which looked near at best. Therefore the case was put upon digitalis for its physiological effect, but my preference being for strophanthus, this was substituted as soon as the latter could be obtained. Five drop doses of the tincture, every three hours, brought the heart's action into rhythm, made the pulse countable, and relieved the gastric trouble in less than twenty-four hours, so that not only the medicines in liquid form, but also food, was tolerated and enjoyed—the first in three days.

Another case will show the influence of this drug upon the circulation in which there is no cardiac lesion present. The trouble here is that of an over-rapid pulse, usually running in the nineties, something of an inconstant *tachycardia*, of the symptomatic, not the idiopathic, variety.

A study of the tracing convinces one there is



more than mere rapidity to be overcome in treating the case.

There is lack of normal heart impulse shown by the low apex. Succeeding that there is an overfullness of the artery, the kind of a pulse which is soft and full to light tactile pressure, and which is again too easily obliterated. There is no arterial tone; hence the swelling wave after

the cardiac apex has been reached, when the artery should contract and force the current into the capillaries. In such a case there is, of course, plenty of outside evidence of venous stasis, portal congestion, sluggish digestion, cedematous tongue, blueness of the superficial veins, and a sense of debility verging at times toward syncope. There is no intermission in the pulse-beat, but frequent remissions are observable. Three days after the strophanthus had been prescribed, only two or three doses daily, this second tracing was taken. A marked difference is seen at once in



the general character of the sphygmogram. There is no special change in the cardiac impulse, but in the arterial portion of the writing it is greatly improved. The arterial contraction is better, and hence there is at once observable a more nearly normal apex. There is still some irregularity and tendency to remissions, but the tone which has been induced has brightened up the patient, made him feel less debility, has dissipated the sense of dizziness, and he remarks, "Do you know that stuff makes a fellow hungry?"

I am aware that this use of strophanthus does not coincide exactly with the testimony of others, but what I here give is adduced from my own experience. Fraser's version of its action is that it has more influence upon the cardiac muscle than upon the arterial. Yet the last case cited contradicts that idea, not because I say so, but because the sphygmogram says so.

In another instance, that of an organic heart case, in which I advised the substitution of strophanthus for digitalis, the result was very satisfactory, but for one thing, and that was the secretion of urine lessened so much there was need for relief in this regard. The digitalis was again prescribed and immediately a diuresis was effected. In this instance the lack of the diuretic property in the one, and the presence of it in the other, made the latter the preferable medicament.

Caffeine and the kola nut are undoubted cardiac tonics, but these I reserve for neurotic cases accompanied or not by valvular or other organic trouble. But I do not consider their action sufficiently deep to make it advisable to persist in them alone if there are organic changes present. The casea has been used similarly to the foregoing, but to so limited an extent that it is not at all one of our prominent remedies.

Before our time expires I must bring to your special notice one of the old favorite remedies, viz., arsenicum. It even leads phosphorus in meeting the condition of fatty degeneration which is so common a sequel to hypertrophy. It quiets the pains about the heart which appear at this

period of cardiac decline, and it adds tone to the faltering action of the heart.

Even before there are any permanent evidences of compensatory failure, occasions arise when it is found very expedient to revert to the use of a good wine or some distilled spirits. Sometimes they are combined with the carbonate of ammonia, or resort is had to ether or spirits of chloroform for their direct stimulating effect. These are temporary, but very efficient, stimulants, and whenever a collapse is threatening they should be administered. A patient whose heart is unsound may be subject to catarrh, and a little undue exposure will likely enough precipitate an inflammation of the bronchial or gastric mucous membrane. Suddenly taxing a damaged heart in this way would result in its failure, and to prevent just such a mishap these stimulants are recommended.

Later in the course of cardiac disease a slight shock or an attack of indigestion may bring the case to a sudden close. With proper instructions to your patients, and advice in regard to the stimulants to be used, many a sudden death, I believe, could be averted.

There is no doubt whatever but that good old sherry wine and French brandy are the best stimulants when they can be tolerated. Your wine merchants will tell you that all the ripening of wines and liquors takes place in the wood, and that when once bottled, improvement ceases.

But you had better take the word of the chemists for it, that not until sherry and brandy have been in glass from one to two years does an appreciable amount of a certain ether develop, which is a marked cardiac tonic. This ether is so volatile that wood allows it to evaporate, so that an additional ageing in glass is necessary before it is best fitted for medicinal purposes.

All of the means which can be employed to sustain the diseased heart will mitigate the severity and early development of the cedemas and anasarca, which become such a terror to the patient and bugbear to the physician. During this stage, recourse may be had to pilocarpine, and occasionally to puncture of the skin, in addition to one or other of the remedies already cited.

**Dead Sea Water as an Antiseptic.**—The Paris correspondent of the *Daily News* states that a well-known French chemist has promulgated the idea of exporting water from the Dead Sea as an antiseptic for use in hospitals, it being reputed mortal to every kind of animal life, and necessarily, as he supposed, to microbes. But a savant whom he consulted said: "Take care, there is hardly a fluid in nature in which a virulent microbe of some sort may not find a good soil." He therefore turned them into the densest Dead Sea water that had ever been fetched to his laboratory. The diphtheria, measles, scarlatina, small-pox and other fell creatures of the animalcular world were experimented upon. All died but two, with which in forty-eight hours the fluid was alive. The one shaped like the clapper of a bell, and the other like a tack nail with a round head, were the microbes of tetanus and of gangrene.



# The New York Medical Times.

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OF

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## ARE PARTY LINES DISAPPEARING.

UNDER this head we quoted in the May issue of the TIMES with editorial approval, an editorial from the *Cincinnati Lancet-Clinic* which included one from the March issue of the *New Remedies*. The June issue of the *New England Gazette* says that the pleasant optimistic inference of the TIMES, the *Lancet-Clinic* (and the *New Remedies*), that in a few years all differences of any moment will be done away with and the schools find themselves as one, can not stand because it rests on altogether unsound premises. "It assumes that the gulf between the schools is one dug by difference of scientific opinion. Was that the case it would be solidly and permanently bridged in a twelve month. *It is a gulf dug by commercialism and by mad unscrupulous prejudice.*" The italics are ours, for this one sentence is the keynote of what is now and ever has been the cause of the antagonism between the two schools, and the commercialism is quite as marked to-day and even more so on the part of the New School than the Old. We have here assumed that the gulf between the two schools is one dug by difference of scientific opinion. Is there any doubt, getting down to the bed rock of solid fact that the terms homœopath and homœopathy are used to-day by thousands, who have but little knowledge or care for the principle they represent, simply in a commercial sense as a tradé mark which has won such distinguished triumphs and appeals so strongly to the thoughtful and cultured everywhere, that it is to a certain extent a passport to professional success. And in precisely the same sense the term "regular"

is used by the Old School, as a trade mark, as a matter of commerce, while all the time science is solving the problem and yearly bringing the therapeutic thought of the world more and more upon the same plane and into the same lines of investigation. As in the beginning the bitter cry of the pharmacutists, "our craft is in danger," caused them to band together in a relentless attack upon a philosophy which would imperil their trade, and which by its reproach upon the heavy dosing of the profession naturally aroused its bitter animosity. So in the progress of time the success won by the purity of the medicines used by the New School, in the expressed juice of plants gathered at proper times and prepared in such a manner as to bring out and retain all their value, in discarding, in fluid extracts and alkaloids, the crude portion of the drug, and separating each distinct active principle, in the breaking up substances by thorough trituration into infinitesimal atoms, changed the whole line of pharmaceutical work and changed also the dosage and the treatment of the physicians who obtained these goods. It is the pharmacist and the chemist after all who are bridging over the chasm by supplying their patrons with the very weapons which have been so potent in the hands of the more exclusive homœopaths. If commerce and prejudice dug the gulf, commerce, in the hands of practical scientists is rapidly filling it up. Prejudice shivering as the chasm is filled, wonders whether if it is not about time to give up trade marks, which have been very useful in their day, but which no longer, in the minds of the people, represent any exclusive principle.

Ten years ago Mr. Fraser, one of the most brilliant pharmacists in the city, and whose prescription work is probably the largest of any pharmacy in the world, commenced the manufacture of tablet triturates, which had recently been introduced into the Old School by Dr. Perry. The triturations were made precisely like those in the homœopathic pharmacy, homœopathic tinctures being used on account of their greater purity and care in their preparation, and minerals, alkaloids and resinoids as chemically pure as the skilled chemist could make them, and worked into tablets for precision in dose and greater convenience. The tablets could be dissolved in water or taken dry, as the physician preferred. In a conversation with Mr. Fraser at this time, a time when advanced thought among the leading writers in the Old School was rapidly turning to a more scientific therapeutics, we suggested that pharmacy was one of the great factors in digging the gulf, which for nearly a century had divided the

profession into warring factions, and that pharmacy is filling it up now with marvelous rapidity. We asked how long do you suppose it will be before it is entirely filled and both sides engaged in planting flowers over the grave of past animosities? About twenty years was the reply. Scarcely ten have yet elapsed, and to-day the output of tablet triturates from Mr. Fraser's establishment is over six hundred thousand a day; from Luytes, of St. Louis, Boericke & Tafel, of Philadelphia and New York, and Buffington, of Massachusetts, the last three leading homœopathic pharmacists, over half a million each. We have mentioned these houses as being the leading ones in this line of trade, but there are scores of other houses all over the country of both schools manufacturing large lines of tablet triturates. The list of single remedies in the houses mentioned above is almost precisely alike, running in mother tinctures from one-half to two drops each tablet, and in powders, alkaloids and chemical salts, from a quarter of a grain to the 3x or 6x. In the combination of drugs in single tablets, we find in Boericke & Tafel's list, opium, pulv.,  $\frac{1}{4}$  ipecac, pulv.,  $\frac{1}{4}$ ; dyspeptic, strychnia sulph., 1-40 ipecac, pulv.,  $\frac{1}{4}$ ; rhubarb, pulv.,  $\frac{1}{4}$  capsicum,  $\frac{1}{4}$ . In Fraser's list we find, opium, pulv.,  $\frac{1}{4}$  ipecac, pulv.,  $\frac{1}{4}$  nux vom., 1-100 carb.-veg., 1-10; nux vom., 1-100 pepsin, 1-10; nux vom., 1-20; sulph., 1-10; acid arsen., 1-100, and so on through a long list.

Now, supposing, as the *Gazette* suggests, a scientific test be made of the two schools in hospital wards placed side by side, and the physicians on both sides prescribe the little tablets obtained the one from Fraser and the other from Boericke & Tafel, both, as we have shown, just alike. The Old School man will occasionally make a better homœopathic prescription than the homœopath, although he will swear it is not in accordance with the law of similars. Who is to draw the line and say what is Old School and what New when the therapeutics of both are often identical. Thanks to the popular disgust for heavy dosing and nauseous drugs, and the facility with which the chemist and the pharmacist appeal to the popular sentiment, the schools are being rapidly amalgamated, and commerce, stimulating the steps of science, is a great factor in the changes yearly going on in the therapeutic world. During the next decade we believe that spirit of medical liberty, which has won such glorious results in the past, will so far increase, that at the end, the gulf will be so far filled that there will be nothing to quarrel about.

Dr. George Taylor Stewart, chief of Staff, reports 647 patients treated at the W. I. Hospital during May, with a death rate of 3.70 per cent. For the five months ending May 31st 2,682 patients were treated, with a death rate of 5.55 per cent.

### THE "CRIMINAL" NEUROSIS.

WRITERS on insanity, notably Dr. Maudsley, assume with doubtful propriety the existence of a neurosis in the constitution of criminals, which impels them to the commission of crime. Crime is as natural to one possessed of this peculiar bias or neurosis it is said, as anything which would turn or mildew in a warm, moist atmosphere. But is this view correct? Is it founded in science and sound philosophy?

The consensus of medical opinion points to two causes of criminal or unlawful conduct, namely, perversion of the moral sense, and congenital absence of moral sense. The former is due to disease of the moral faculties from causes and sequences strictly legitimate; the latter is due to congenital defects of the moral nature or failure on the part of the moral faculties to develop from causes as strictly legitimate. The one is moral insanity; the other is moral imbecility. For our part we do not see where the criminal neurosis comes into the count.

Man, as well as other predatory animals, with defective or imperfect development of the moral sense, which means a lack of a due sense of the rights of other men and animals, rob, steal or kill, as in their judgment may best serve their purpose, or as occasions may seem to them to require. Nations the most civilized and the least civilized have done their acts of wrong against other nations from time immemorial, and do now perpetrate them. Their conduct in this respect accords perfectly with that of certain animals, the tiger class for example, which take by stealth or other arbitrary or unrightful means what their necessities require, without a thought of rendering an equivalent. Is this conduct due to a criminal neurosis? By no means. It is rather the result of defective moral development, which makes such men and animals blind to the rights of others. Their only thought is self and self-gratification. Benedikt has taken the trouble, with the spirit of a true scientist, to examine the brains of twenty-two persons of the thief and robber class, with the result of finding them unhuman or moulded after the type of the brains of savage animals. Physiologically, those brains were sound. They simply showed a gross disproportion between the cerebra and the cerebella to the disadvantage of the former—in other words, moral imbecility. Says Benedikt: "An inability to restrain themselves from the repetition of a crime, notwithstanding a full appreciation of the superior power of the law (sanity), and a lack of the sentiment of wrong,

though with a clear perception of it, constitutes the two principal psychological characteristics of that class to which belongs more than one-half of condemned criminals."—(Fowler's Translation).

In regard to moral insanity, or disease or derangement of the moral faculties in brains of normal development, it is equally superfluous to bring into the diagnosis an immoral or criminal neurosis. Acts of violence against themselves or others committed by the morally insane by reason of *delusion of or a mistaken sense of right and duty*, from aberration or perversion of the moral brain centers. The function of the moral center or centers in these cases, is perverted—often augmented or suspended altogether from causes which are adequate to produce them in the case of any individual of refined and sensitive organization and temperament, the worst cases of moral insanity occurring among the more moral and enlightened—as one would naturally suppose. The cause or causes in these cases relate to faulty personal habits and modes of living, unwholesome occupation, the moral strain and stress connected with the struggle and vicissitudes of life, unfavorable environments, etc., rather than to an insane bias or neurosis.

The losses, crosses, griefs and disappointments which come to some people are enough to destroy the tone and integrity of the most stable nervous systems, unless, indeed, their possessors are lacking in sensibility. Not to break when the strain is too hard to bear is not necessarily evidence of a lack of a suitable neurosis, but rather the existence of moral or emotional apathy.

It is, moreover, inconsistent with the scientific spirit to make hypothetical distinctions between the causes of so-called mental and physical maladies. Their causes are often identical and the two classes of maladies interrelated. To us it is no more a question whether the hypothesis of a neurosis is needed to explain the phenomena of morbid impulse, or moral insanity, or moral imbecility, than it is to explain the phenomena of scrofula, jaundice, or consumption of the lungs. The antecedents of all these cases show that they have a right to be.

THE Surgeon-General defines the term *Regular* as used in paragraph 544 of Army Regulations, in connection with medical colleges, as indicating a college well equipped and prepared to cover the whole ground of the science and art of medicine in its teachings, and requires not less than a three years' course of study to secure its diploma. A college fulfilling these requirements is regular, no matter whether understood to be Old School, New School or Eclectic.

#### BETTER CARE OF THE INSANE.

THE last legislature passed two acts designed to provide better care for the pauper insane of New York, and according to rumor, there is need enough of it. The two bills are the result of enquiries made recently by a commission appointed by Mayor Grant, consisting of Elbridge T. Gerry, Ex-Mayor Edson, Oscar S. Strauss, E. P. Barker and Wm. Lummis, whose exhaustive report shows that all the institutions are greatly overcrowded, even at the farm at Islip, L. I. This farm of 1,000 acres can afford all the necessary relief, but it seems to us that it was a great mistake in locating where the railroad must be used for transportation, instead of steamers, which would be more convenient and economical. A location on the Sound side of Long Island would appear to be far preferable from any point of view, and it is not too late to change, as the property at Islip, no doubt, could be sold for all that was paid for it, and a more convenient location selected. The chronic and harmless insane, are all to be taken to the farm where they may rest quietly in inexpensive pavilions so long as they may live, and the acute cases *only* kept near the city, and the present buildings will be adequate for all such for years, thus saving the city a vast sum of money for buildings. The city has recently become possessed of that half of Ward's Island owned by the State and formerly occupied for emigrants, which it is proposed to divide between the male and female insane, and already \$500,000 has been appropriated for new buildings! This sum will put up a vast number of cottages on the farm for the class that will be sent there.

Why old chronic insane paupers should be kept under our very noses, there can be no reason! To the layman all insane people are alike, hence it is not strange that the committee should have suggested that Ward's Island be occupied exclusively by the insane.

Dr. Macdonald, the eminent alienist who presides over the department for the insane, we understand, will classify these patients according to acute and chronic cases. The acute cases require the best medical talent to be obtained in their treatment, while the chronic or incurables require next to no treatment at all, and only need a place in which to stay in and be protected. We are told that seventy per cent. of the total insane in the department are chronic hopeless cases.

Verplanck Hospital at Ward's Island with the asylum for insane near it, will hold all the acute female insane at present, and the others will be better off at the farm.



The department for insane, in the Department of Public Charities and Correction, was never in so good condition or under better management than at present.

The Board of Commissioners is in thorough accord with Dr. Macdonald, the efficient superintendent, in the work, and the care and treatment is about all that could be desired. More and better room will afford the needed classification and more breathing space, so that the physical condition of these unfortunates will be improved, we hope, to perfection.

Blackwell's Island will hereafter accommodate all of the city's sick paupers, which for many reasons will be a great improvement.

#### THE SEVERED HEAD.

MANY of the scientific societies in Europe have been discussing recently the experience of the celebrated painter Wiertz, of Bruxelles, who, in company with the prison physician, who gave him every facility to carry out his plan, persuaded a noted scientist to hypnotize him when standing on the scaffold, so that he could really experience the sensation of the victim as the knife fell until life became entirely extinct. As the knife fell the painter seemed convulsed and moaned. Oh, horror! the head thinks and feels and suffers horribly. At the same time the witnesses noticed the arteries of the severed head pulsating as the blood spurted out. The painter, with his face distorted with agony, moaned:

"Ah! what hand is this strangling me? An enormous, merciless hand. Oh! this pressure crushes me. Nothing but a large red cloud do I see. Shall I ever liberate myself from this accursed hand? Let loose, you monster. Vainly do I struggle with both my hands. What is this I feel? An open wound and my blood flowing. I'm nothing but a head rent from the body!"

It was only after long suffering that must have seemed endless that the decapitated head realized its separation from the body.

Wiertz had again subsided into somnolence, and Dr. D—— continued his interrogatories.

"What do you see now? Where are you?"

The painter answered: "I fly into open space like a wheel hurled through a fire. But—am I dead? Is all over with me? Oh! if they would only join my body with my head again! Oh, men, have mercy! Restore my body to me and I shall live again. I still think. I still see. I yet remember everything. There are my judges clad in dark robes. They utter my sentence! Oh, my poor bereaved wife! My wretched, unfort-

unate child! You love me no longer. You abandon me. If only you would unite me with my body I should be with you again. No! You are insensible to my entreaties. But I love you still, my poor darlings. Let me but embrace you. Come, my little child. No? You shudder with fear. Oh, unfortunate, you are stained with my blood! When will this ghastly racking end? End? Is not the criminal doomed to eternal punishment?"

While the sleeping artist described these sensations the bystanders noted that the orbs in the severed head were immensely dilated and expressed indescribable agony and intense pleading. The bewailing continued:

"No, no; such torture can not last forever! God is merciful! Now all belonging to earth fades from my sight. I see afar, in the remote distance, a star glistening and scintillating. Oh, how restful it must be there! How relieved I feel! My entire being is soothed by the gentle balm of peace and calmness. What a tranquil slumber I shall have! Oh, what ecstasy!"

These were the last words uttered by the hypnotic subject. Although still in his sleep, he failed to answer any further questioning. Dr. D—— at this point examined the head in the basket, touching its forehead, its temples, its teeth; all was icy. The head was dead.

#### SURGICAL FEES.

A SURGEON in Chicago recently performed the operation of intubation, and thereby saved the patient's life. For this work, which required neither great anatomical knowledge or skill, but more especially a certain amount of manual dexterity, a fee of \$2,000 was charged. The father justly contested the bill as being exorbitant. The charge was simply an attempt at professional robbery, and we are glad the father had the spirit to contest the charge as unjust and an attempt at extortion. The charge made by some surgeons, when they think they can get it, for simple operations, is a violation of every principle of honor and decency. A physician will receive for a consultation from ten to twenty dollars, requiring as much time and infinitely more thought and skill than many operations of a surgeon where a thousand dollars is charged. Is there any reason why the charges of the one should be so much in excess of the other except from the magnitude of the fee to impress the patient with the tremendous skill of the operator. A lady came to us not long since who had been told by an eminent gynecologist that it would be

necessary for her to go into his private hospital for some weeks for general treatment before he could operate upon her for a tumor of the womb. The board would be fifty dollars a week and the operation five hundred dollars. Placing the patient upon the gynæcological chair, a polypus about the size of an almond was found attached to the posterior lip of the womb. It was only the work of a moment to twist the tumor off with a pair of uterine forceps and make a little local application to the base. In another case we diagnosed the intense suffering of a lady to be the result of cancer of the omentum involving the region of the cecum. A distinguished gynæcologist, under whose care she was placed, found what any one could easily have found if it had been looked after, a small fibroid in the cervical canal, which he said was undoubtedly the cause of all the trouble. The tumor was removed at the cost of two hundred and fifty dollars, and the autopsy, six months after, revealed the cancer. The excessive charges common among specialists lay the whole profession open to the charge of trading upon the ignorance of the people.

#### DIPHTHERIA.

NEDEWIECKI, of Serdobsck, has found great benefit from salycilic acid  $\text{ʒi. to ʒiv.}$  of aqua calcis, a dessert spoon given every hour until marked improvement is shown, when the intervals are to be increased. The mixture should always be well shaken. This treatment was successful in forty cases. Netzetshoy says, in his twenty-two years of practice he has found no remedy so effectual as a solution of permanganate of potash,  $\text{ʒi. to the ounce}$ , applied locally. When it is impossible to do this he gives the following mixture, a teaspoonful every two hours: R. Sol. hydrogenis superoxydati, two per cent.,  $\text{ʒii.}$ ; glycerine,  $\text{ʒii.}$

#### SNAKE POISON.

DR. MUELLER, of Victoria, who has had a large experience in the treatment of snake bites with strychnia, says in the *Homœopathic World*:

"Where there is unmistakable evidence of a large quantity of snake-poison having been absorbed proportionately large doses of the antidote are called for, and my own experience, as well as that of medical men in all parts of Australia, has proven most conclusively that these large doses may be administered with perfect impunity to the sufferer, and produce the most

immediately favorable results. The antagonism between the two poisons is a perfect one. *Strychnine* does not manifest its usual physiological action in the presence of snake-poison until it has completely overpowered the latter, and I have therefore pointed out, as a safe guide in practice, to watch for the first symptoms of this action, namely, muscular twitchings, and only then to discontinue the use of the antidote, unless after a time the snake-poison reasserts itself."

Dr. Mueller commences, where great danger is apprehended, with hypodermic injections of one-sixth grain of strychnine, closely watching the effects.

THE editor of the *Confectioners' Gazette* takes exception to the following statement in a recent article on confectionery in the *MEDICAL TIMES*: "The most frequent adulterant used for this purpose is terra alba or white earth," and asserts that terra alba is at present never used as an adulterant. We gladly make the correction. The tone of the *TIMES'* article was one of marked satisfaction at the great improvement in the condition of confectionery at the present time in comparison to years ago, and the idea intended to be conveyed was that when adulterants were used "*terra alba*," which is not poisonous, was the most frequent.

THE unfortunate death of a student at Yale College, in consequence of the nonsensical initiation to some secret society, should put an end to all such work wherever found. The practice of hazing we believe is done away with, now let this other barbarity go too! A positive public opinion will accomplish it. Parents, guardians and the faculties of our colleges should go to work with a will to break up dangerous and antiquated habits which never should have been allowed to exist. Severe punishment ought to be inflicted, if necessary, to stop any practice that may be dangerous to life or limb. Bad boys ought to be sent home to their fathers to be spanked!

#### HYDRASTININE IN UTERINE HEMORRHAGES.

FROM the fact that the specific action of this remedy seems to be upon the vessels of endometrium, and that it is not productive of abortion, it can be given in those cases of hemorrhage during pregnancy where ergot would be entirely inadmissible. In cases of menorrhagia, either simple or ovarian, its action is less prompt than that of ergot, which is preferable in urgent cases,

but, given continuously in menorrhagic cases, its curative action is infinitely superior; given hyperdermically, in urgent cases, in the form of fifteen drops of a ten per cent. solution, it produces smarting and often ecchymasis. In tablets of  $\frac{1}{4}$ th grain it may be given in all tendency to uterine hemorrhage, as well as in leucorrhœa and catarrh, with most satisfactory results. Hydrastis will be found of great benefit as a tonic to the mucous membrane of the lungs, the stomach, and to the weakened mucous membrane wherever it is found, given in the form of lotion, spray or internally.

**CARBUNCLE.**—Dr. Madden, in the *Eclectic Medical Journal*, injects, when the character of the trouble is apparent, five drops of pure carbolic acid into the central portion of the mass. This is followed by a local anesthesia and an entire relief from pain. In a day or two suppuration is fully established and the whole mass speedily breaks down and discharges in pus. Dr. Hite, in the same journal, treats the trouble with marked success by the external and internal use of silica, 3x, giving several cases of brilliant results from its use.

**THE** American Medical Association had a lively time at its recent meeting over the Code of Ethics, and a most exciting discussion arose respecting the eligibility for membership. The fight is really between the Old and New Code men in New York State, and is the old issue over again. The matter was placed in the hands of a committee of five of the association, the State Society and the secessionist society of New York known as the N. Y. Medical Association, respectively. If a settlement is reached somebody will have to yield a point, and we shall look anxiously to see which party it will be.

### BIBLIOGRAPHICAL.

**DISEASES OF THE EYE.** A Hand Book of Ophthalmic Practice. By G. E. de Schweinitz, M. D., Professor of Diseases of the Eye, Philadelphia Polyclinic; Ophthalmic Surgeon to Children's Hospital and to the Philadelphia Hospital; Ophthalmologist to the Orthopaedic Hospital and Infirmary for Nervous Diseases; Lecturer on Medical Ophthalmoscopy, University of Pennsylvania, etc. Forming a Handsome Royal 8vo. Volume of more than 600 Pages. Over 200 fine Wood-cuts, many of which are Original, and Two Chromo-lithographic Plates. Price, Cloth, \$4.00 net; Sheep, \$5.00 net. W. B. Saunders, Philadelphia, 1892.

The general plan of the book is practical, and the methods of examining eyes and the symptoms, diagnosis and treatment of ocular diseases and refractive defects are everywhere brought into prominence. Attention is called to the following points:

I. The systematic directions for recording each case of

ocular disease and for making the examinations necessary to lead to an accurate diagnosis, beginning with direct inspection of the eye and passing in review one method of precision after the other until all the functions of the organ have been investigated.

II. The careful explanation of the two methods of ophthalmoscopy, and the cautions which help the student to use the ophthalmoscope properly and prevent him from falsely interpreting its findings.

III. The judicious classifications of the various diseases of the eye facilitating their study, together with useful tables for differential diagnosis.

IV. The symptom-grouping, which, with each important general disease, precedes the special symptoms of the various types, e. g., in glaucoma, cataract, iritis, choroiditis, retinitis, optic neuritis, etc.

V. The careful pointing out of the indications for treatment, and the detailed methods of treatment, both medical and surgical.

VI. The explicit directions for preparing a patient, the hands of the surgeon, the dressings, and the instruments preparatory to an operation, and the detailed description of the steps of the important operations.

VII. The selection of the illustrations (nearly one-third of which are new), which materially facilitate the understanding of the directions.

VIII. Special attention is called to the work of Dr. James Wallace, who contributes:

(a) The chapter on General Optical Principles, including Accommodation and Convergence. The descriptions are clear, and especially valuable to students are the practical directions for combining spherical and cylindrical lenses.

(b) The chapter on Normal and Abnormal Refraction, in which all that is theoretical is well explained, and—what is most useful—the pages are replete with practical directions for determining the refractive error, illustrated by numerous examples. The sections on Astigmatism and Presbyopia are especially clear in these respects. The addition of a section on Spectacles and their Adjustment is most valuable. These directions are seldom found in textbooks and are nowhere so explicitly recorded.

(c) The section on Reflection, which suitably precedes a clear account of the Ophthalmoscope and its Theory.

(d) The portions devoted to the Rotation of the Eye-ball Around the Visual Line, and the explanation of the Projection and Position of the Images in Strabismus, illustrated with Dr. Wallace's original drawings, which greatly help in the understanding of these difficult subjects.

(e) The carefully classified Causes of Concomitant Squint and the terse explanations.

IX. The contribution of Dr. Edward Jackson on Retinoscopy, which is an excellent and practical description of this method of determining refractive error, written by a master of the subject, and illustrated by examples and original drawings.

**ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES**, in five volumes, edited by Charles E. Sarjon, M. D., assisted by seventy associate editors and over two hundred collaborators, published by F. A. Davis Co., Philadelphia, makes its fourth annual appearance, clearly printed on excellent paper and substantially bound in the issues of 1892. If one year's issue is better than another, it is simply because that year has been richer in scientific investigation and medical thought and experience, for this Annual yearly gathers into its ample pages, in a condensed form, the scientific investigation, the clinical experience and ripe thought culled from over a thousand medical journals in every language in the civilized world, and from the teeming presses of all the great medical publishing houses. We are glad to learn that the sale of this yearly encyclopædia is every year rapidly on the increase, old subscribers continuing from year to year and a host of new ones constantly added to the list.



## CORRESPONDENCE.

## ORIGINOMANIA.—CRANIOTOMY AS A CORRECTIVE.

The European scientific mind has of late been much concerned upon the subject of criminality. Meetings have been held in Rome and Paris, and in August next it is proposed to bring the question again before the "International Congress of Criminal Anthropology" at Brussels. An unusual stimulus has been given to the agitation and discussion of this question by the recent dynamite outrages which have been committed, especially in Paris, and have caused it to be the subject of most anxious and serious consideration. Upon the occasion of the discussion of this important question of criminality, it would be but natural to inquire into the general mental and moral condition of those who are concerned in the nefarious outrages, and to determine, if possible, the existence and degree of mental and moral alienation and perversion that would naturally prompt to carry them into effect. In connection with this subject, and bearing close relation to it, there is another that is now engaging the attention and interest of the medical profession, and that is the possibility of the relief and cure of mental diseases by surgical interference. Among the records of advanced surgery there can be nothing more interesting or better calculated to inspire admiration for the achievements of modern surgery than the reports that come to us from time to time of the remarkable results of craniotomy in restoring to a sound mental condition those who had been subject to both mental and moral obliquities and aberrations, not only so, but with a tendency to crime and the commission of criminal acts, all of which were removed and transformed by the above-named operation. The following case in point has just been published in full detail in one of the last numbers of the *Gazette des Hôpitaux de Paris*: "It was that of a young woman, thirty-one years of age, who had been received at the public insane asylum of the Bouches du Rhone for imbecility, with uncontrollable impulses, manifesting themselves by acts of violence inflicted on persons about her. In her personal antecedents the only thing noted was a fall at the age of six, and which left a scar, with a depression in the bone on the left side of the cranium."

The reporter then goes on to speak of her disposition, which before the fall had been "of the same nature as any other child of her age, but from that time became queer, insubordinate and irritable; she could not be kept in any school, and passed her time in idleness and in quarrelling with her mother and neighbors. An epileptiform crisis and attacks of vertigo induced her physician, Dr. Boubila, to diagnose epilepsy, caused, in all probability, by the accident that had occurred twenty-five years before." She was treated surgically by Dr. Pantoloni, of Marseilles, who trephined the skull on July 1, 1891, and removed the portion of bone pressing on the brain. A month after the trephining a marked change was observed in her actions, bearing and conduct. Modesty and deference took gradually the place of the cynical nature that had characterized her deportment before. There was no more violence and no more coarse remarks. Her insolent behavior and disgraceful language were succeeded by true emotions and thankfulness for the care she had received. She continued to improve in every respect, and where she had formerly distributed blows right and left, she now bore, without protestation, ill treatment at the hands of her comrades. She was permitted occasional periods of liberty, and finally released cured.

Now, not only were the results of this simple operation most remarkable as showing the effects of the removal of a piece of bone which had been pressing upon the brain, and which was speedily followed by what appeared to be

a complete transformation of the whole mental and moral nature of the patient, but it involves that most important consideration of the substitution of the tendency to commit crime by the development of conduct characterized by docility, gentleness and perfect propriety of deportment. Most of us are familiar with the story of the laborer who fell from a height, and in the act of falling was heard to exclaim, "God have mercy." Before the sentence of the exclamation which he proposed to utter could be completed his head struck the ground, causing both concussion of the brain and depression of the skull. Of course insensibility followed, and continued until the surgeon trephined the skull and elevated the depressed bone. The first evidence of returning consciousness was shown in his completing the sentence of his exclamation when falling, and the words "on my soul" showed that the brain had resumed its normal functions. In this case there was the temporary suspension of all mental operations; but in the case of the young woman reported, the compression of the brain by the depressed bone did not suspend the faculties. Whether it did or not at the time of the accident we are not told, but, by its long continuance, perverted them, and, at the same time, had the effect of degrading the whole mental and moral nature. Now, how to account for this? Did the depression of the bone so interfere, through a number of years, with the development of the cortex of the brain as to dwarf its intellectual and moral capacities? In other words, did the depression of the bone prevent the physical development of the cells of the cortex, which, as we have endeavored elsewhere to prove, are the essential factors of mentality and all the mental operations? Not only so, but did the moral faculties likewise so suffer by the same physical bone depression, and so feel its blighting and perverting influence that the whole moral nature was changed, and every impulse of a more exalted and refined character became degraded and corrupted thereby. If this be so, then we can not escape the confirmation of the belief that the powers, both mental and moral, with which we are endowed, owe their origin and their dispensation to the cortex of the brain and the cells of which it is mainly composed. If this young woman had continued, after the operation, to give evidences of mental and moral depravity, we might then conclude that she was naturally prone to such obliquities, either from heredity or some other occult agency, and would have had to look elsewhere for the cause. But we are distinctly told that very soon there came a change. All violence and intractability gradually ceased, and her whole nature underwent the remarkable transformation that we've seen.

Another most important inquiry presents itself here, and it is this: If the simple depression of a piece of bone of the skull can so disorganize and disrupt the mental and moral unity of the mind and character, may not the tendencies to the commission of crime that so often prevail be the result of unnatural and abnormal physical or other impediment from some malformation, or the opposite, or an arrest of development, whether hereditary or the result of disease within the brain, and if so, are criminals always responsible for acts of crime committed under such impelling physical influences?

JAMES A. CARMICHAEL, M. D.

## SURGICAL SAVAGERY.

To the Editors of the NEW YORK MEDICAL TIMES:

The above term may well be applied to what is fast becoming, if it has not already become, a prevailing and pernicious practice of resorting to surgical operations without there being in too many instances either the necessary indications for their performance, or the equally necessary experience and surgical judgment to determine their advisability. This is particularly applicable to the operation

of laparotomy, and it is too often distinguishable more for its brutality than for any other commendable feature. Every one knows that there is really no surgical skill requisite in the performance of this, in many instances, cruel operation. It consists simply in cutting a hole in the abdomen of a woman, and violently ripping and tearing from her her ovaries or womb or both. The very simplicity of the operation so far as anatomical knowledge and surgical skill are required, and the absence in the generality of cases of any immediate danger to the patient, have given the opportunity to nascent surgery to flesh its maiden knife and so proclaim its readiness for all surgical undertaking. While it is true that cases may and do arise which demand surgical interference in this direction, yet it is equally true that the lives of many women are needlessly sacrificed to the overweening ambition and desire, particularly among the younger members of the profession, to be called surgeons. Women die when they should not, and would not die but for this meddlesome practice. The science of surgery is designed to save life when all other remedial measures have failed, and when the imminence of death from accidents or other causes make its salutary interference indispensable. The great glory of surgery is what we know as conservative surgery, whose ministrations are never more glorious and beneficent than when they supersede and turn aside the knife. The attention of the profession is gradually being aroused to the truth of what is here stated, and a signal rebuke to what may aptly be called surgical savagery is certainly needed to check this growing evil.

CONSERVATIVE SURGERY.

### OBITUARY.

MR. HENRY A. RILEY, whose articles have frequently appeared in the TIMES on "Medical Jurisprudence," died, June 8th, of heart disease, from which he had been for a long time a sufferer. Compelled to give up his law practice on account of his health, for two years before his death he devoted most of his time to writing upon medical law. His articles were always welcome in the medical journal to which they were sent.

DR. CHARLES E. LANNING, of Chicago, several of whose lectures have appeared in the TIMES, died from pneumonia, May 20, 1892.

### TRANSLATIONS, GLEANINGS, ETC.

**The Aboriginal North American Tea.**—In Bulletin No. 14, U. S. Department of Agriculture, Dr. E. M. Hale discusses the aboriginal tea of North America, "Yopon" (ilex cassine), a species of holly growing in the Southern States along the sea coast from Virginia to the Rio Grande. The author states twenty or thirty miles from the coast, which is an error. Sargent reports it in Arkansas, and we have seen it at least 100 miles from the coast in Washington County, Texas. The leaves were used by the aborigines as the Chinese tea and the Paraguayan mate (ilex Paraguayensis). Prof. Venable, who has made a chemical examination of five species of ilex found in North Carolina, finds the alkaloid, caffeine, only in the leaves of yopon. Of the five species belonging to the genus thea, to which tea belongs, only one contains theine. Of the order cinchonaceae, to which cinchona and coffee belong, only one contains caffeine, and that is coffee. Three other South American species of the genus ilex contain caffeine. Yopon tea is not as pleasant in odor and taste as Chinese tea, but it seems to have some salutary properties not possessed by the latter.

**International Dermatological Congress in Vienna.**—The second meeting of the International Dermatological Congress will be held in Vienna from the 5th to the 10th of September, 1892.

Many of the most distinguished representatives of dermatology and syphilography from all countries have promised to present papers, and the indications are that the meeting will be a great success from a scientific standpoint.

The Committee on Organization, through the President, Prof. Kapesi, has extended a cordial invitation to the members of the American Dermatological Association and of the New York Dermatological Society and others interested in dermatology in this country to be present.

The membership fee (five dollars) should be sent, with titles of papers intended for presentation, to the Secretary for North America, Dr. Prince A. Morrow, 66 West Fortieth street, New York, or to the Secretary-General of the Congress, Dr. Gustave Riehl, Wien 1/20, Bellaria strasse 12.

**Differential Diagnosis of Diphtheria and Membranous Pharyngitis** (A. Lewers, *Australasian Med. Gazette*, March, 1892):

#### DIPHTHERIA.

It is not common after puberty.

The prostration and sense of illness is marked, although the temperature be little elevated and the throat symptoms slight. Briefly, general symptoms more marked than local.

Albuminuria is common.

The edges of membrane are thin and ill defined, and shade off into surrounding tissue. On peeling membrane a bleeding surface is left.

Uvula commonly involved.

Membrane does not dip into follicles. (Flint.)

No follicular ulceration co-existent. (Schech.)

The tongue at outset is not usually characteristic.

#### MEMBRANOUS PHARYNGITIS.

It is most common after puberty; not often met with in young children. Mackenzie says tonsillitis is more common between 15 and 25 than any other age.

The prostration and sense of illness is usually not marked, although the temperature be very high and the throat symptoms severe. Briefly, the local symptoms are more marked than the general.

Albuminuria is very exceptional.

The edges of membrane are steep and well defined, terminating abruptly. On peeling membrane no bleeding or excoriation.

Uvula rarely, but may be involved.

Membrane may be seen dipping into follicles. (Flint.)

Follicular ulceration present frequently. (Schech.)

The tongue at outset is frequently characteristically coated with thick yellow-white fur.

**Syphilis and Cigars.**—Dr. W. S. Gottheil points out in the *New York Medical Journal*, a danger to smokers often mentioned but emphasized with peculiar force in two cases that have quite recently come under his notice. A cigar finisher, a girl aged nineteen, came to him with a swelling of the lip which proved to be a typical chancre, and further examination proved her to be thoroughly syphilitic. She had worked steadily up to the time she was seen. She "finished" the cigars made by a machine, biting off the ends of the wrappers and using her saliva to shape the tips. She maintained that it was absolutely necessary to finish them in that way, and stated that every finisher in the factory—one of the largest in the city—does exactly the same as she does. She refused to believe in the contagiousness of her malady. She remained under treatment but a

short time, and then withdrew from observation. She thought she had acquired "some disease" from a girl friend also a finisher, since they both used the same cup to drink from at luncheon. Dr. Gottheil, after much effort, found this friend, who presented the same condition. She had been working steadily. She invariably finished off the ends of the cigars with saliva, and said the practice was universal, as it would take too long to use knife and paste. She also refused to believe that her malady was syphilis, and remained under treatment only a few days. The doctor while "not aware that any epidemics of syphilis have been distinctly traced to the use of cigars" remarks that "it remains a fact that upon every single cigar tip of the thousands finished by these two operatives there was probably deposited a portion of the virus of the disease. Moreover, the practice of using the teeth and saliva in the manufacture of an article which is destined to be taken into the mouth is not without serious objections entirely apart from considerations of disease." He commends the subject to the consideration of the health authorities, and suggests to smokers the use of cigar-holders in the interests of cleanliness, if of nothing else.

**Nephrectomy.**—George Ben. Johnston, M. D., *Va. Med. Monthly*, July, 1890. Simon added a triumph to modern surgery in planning and executing nephrectomy.

The indications for its performance are, briefly:

1. Injury to one kidney, which, from hemorrhage or supuration, threatens life.
  2. Urinary fistula following rupture of the ureter.
  3. Unilateral tuberculosis in its early stage.
  4. Tumors which are benign and the sarcomata of adults.
  5. When palliative measures have failed to relieve floating kidney, which affords great distress.
  6. As a secondary operation in hydro and pyo nephrosis. It may be performed by one of three methods:
1. In the loin, following the outer border of the erector spine muscle.
  2. At the outer border of the rectus abdominis muscle.
  3. In the linea alba.

For obvious reasons the first of these routes is to be chosen when the nature of the case allows a choice. In the first place, the kidney is reached without trespassing upon any important structure. The peritoneum is not wounded, and thus escapes contamination. By reason of its dependent position the wound is easily drained, by either of the abdominal incisions the peritoneal cavity is entered, and thus the gravity of the situation is added to. The abdominal sections, however, have the advantage of permitting an inspection of the supposed healthy kidney, which, on occasions, might prevent an egregious blunder.

It may be said, in a general way, that the lumbar incision is to be selected for the removal of the fluid tumors of the kidney and inflammatory conditions, while for the larger solid and non-inflammatory tumors the abdominal section is to be preferred.

In either case the most careful antiseptic precautions are to be observed.

The operation has been performed, as shown by statistics detailed by Ashhurst, 405 times.

These cases terminated thus:

In recovery.....	257
In death.....	148
Giving a mortality of 36.5 per cent.	

**Public Incubators.**—A number of the towns in France have been studying measures to prevent the steady decrease in population in the country, and have adopted one notion that may have its application, if extended to other places. It is to prevent the death of the children born before term, by establishing artificial maternities, where the use of the hatching-machine, or "*couvreuse*," could be

given to the public at a small rate or for nothing, depending on the case. Some of the cities, like Marseilles, have had a meeting of the city councils, and have passed laws regulating such establishments, and have voted certain sums towards their maintenance, and charitable persons have been asked to contribute towards them, not only as a charity, but also as a patriotic saving of soldiers to the country. An automatic *couvreuse* is used, based on Dr. Auvard's model, which has been improved. Each room of the place used may contain a dozen of the hatching-machines, and one or two attendants can attend to the children placed in them. It is hoped in this way to save many infants born before term, belonging to poor people, who either could not or would not provide such treatment. It is also thought that, raised in this way, away from the hospitals, such children will have a better chance than when put into such apparatus in the obstetric wards of the hospitals, as at present.

#### Enlarged Prostate Not as Common as Supposed.

Dr. A. J. Howe, in *Eclectic Med. Journal*, says: I have studied the "old man's racket" with zeal, and found that the inexperienced in such matters are generally too heroic; they fly to diuretics and harm their confiding patients. They should go slow and be sure to do no harm. Tell the elderly patient to take epsom salts in broken doses, to drink lemonade directly from the fruit; to lay in a barrel of crab cider in the late autumn and drink a little every day after the apple juice has fermented. The urine of the old fellow is often alkaline and charged with phosphates. The digestion may be feeble, the brain worried and the body wearing out, with waste not escaping freely through the emunctories. To "give the old man another chance" he must be managed on common sense plans. Be discreet in the use of sounds, catheters and other implements.

To repeat, the prostate gland is not hypertrophied half as frequently as we have been supposing. The gland not unfrequently swells, and thereby occludes the urethra, or in some unknown way obstructs urination. It is a curious kind of hypertrophy, which all at once prevents micturition, and in two hours afterwards permits the passage of a full stream.

**Itching in Scarlet Fevers** is not always agreeable, but it has never been supposed to be a favorable sign, yet St. Philippe (*Rev. Mens. des Mal. de Lienf.*, February, 1890,) according to A. F. C., in *Archiv. Ped.*, in a paper presents the following conclusions:

1. Scarlatina is a disease which is often accompanied by itching.

2. This variety usually has a favorable prognosis.

3. The itching is due to the fact that the eruption is not intense and the cutaneous lesions not very profound.

The best application for the relief of this itching, or almost any other, for that matter, is the following:

B. Campho-phenique..... 3 ss.

Albolene Unguent..... 3 jss.

M. Sig. Apply night and morning.

Another advantage is, that is in the direction of personal disinfection.

**Impregnation of One Sexual Pervert Female by Another.**—Duhousset (*Moll's Contrare Sexualempfindung*) reports a case of two sexual pervert females which came under his observation. One of them at length married but kept up her relations with the other. The unmarried female had an enlarged clitoris by which coitus was performed. The unmarried pervert became pregnant, to her own astonishment. The matter was later explained by the admission of the married pervert that, immediately after coitus with her husband, she had indulged with her "friend," who thereby impregnated herself.



## MISCELLANY.

—Perhaps the most striking feature in connection with Dr. Guinness' recent report upon the "sleeping sickness" in West Africa, is an account of an intelligent young negro from the Middle Congo, who, being attacked by the malady, and recognizing its nature and almost certainly fatal issue, traveled upwards of six thousand miles to offer himself and his body, after death, for the benefit of science and his suffering fellow-tribesmen.

—Sprained ankle has been cured in an hour by showering with hot water poured from a height of a few feet.

—The Illinois Board of Health will not accept a death certificate bearing the words heart failure.

—A species of vegetable intoxicant has been added to the collection of plant curiosities at the Washington Botanical Garden. The liquor it distills in the pitcher-shaped receptacles that hang from its stems is especially liked by frogs, which hop into these traps for the purpose of drinking it. Although the sweetish fluid is a powerful intoxicant, the batrachian customer, however wildly overstimulated, would certainly jump out again were it not that two very sharp, dagger-like thorns project downward from the lip of the vessel in such a manner that Mr. Frog, in trying to escape, is thrust through the body by them at every leap, until presently he falls dead in the liquid refreshment—an appropriate object-lesson to all intemperate creatures—whereupon the plant absorbs his substance, as the ordinary whiskey-shop consumes that of its frequenter, and is thus supported.

—Dr. Horwitz (*Times and Register*) says: The glands above Poupart's ligament are the immoral glands. If you find them enlarged, examine the penis, and in nine-tenths of the cases you will find the cause in the penis. If the swelling is in the glands below Poupart's ligament, the cause is probably in the foot.

—For washing the hands previous to making vaginal examinations, Prof. Parvin uses and very strongly recommends sapo viridis and sand. The sapo viridis gives a good lather, and the sand, by mechanical action, leaves the skin of the hands soft and in excellent condition for making the examination. This method is in general use in Germany, and since its introduction midwives have been required to wash their hands in this manner, and the mortality in obstetrical practice has been considerably reduced.

—Berlin police authorities are trying to devise a method for the more thorough cleansing of beer-glasses in restaurants. The city health physicians say that disease is spread by the glasses washed as they are at present.

—Prof. Hare says that for fainting, as a rapidly acting stimulant, give alcohol, hot and concentrated. The hot alcohol acts much more quickly than cold, because the cold alcohol, before it can be absorbed, must be heated up to the temperature of the body.

—A celebrated physician had just completed a very difficult operation. "Ah, well!" remarked a friend who was standing by, "you have done your best, and can now only leave the rest to Providence." "Pardon me," replied the operator, "I never leave anything to an unqualified assistant."

—Weismüller reports (*Berlin klin. Woch.*) seven cases in which unpleasant symptoms have followed the external application of dermatol. In one of them, thirty grams of the drug has been used during twelve days as a dusting powder for an ulcer on the foot, when vertigo and severe itching of the skin ensued. In another case the same symptoms followed the use of fifteen grams of dermatol, and in addition an itching eruption broke out over the whole body. Five other patients were similarly affected after the use of the drug.

—A circular issued by Stanford University gives the first intimation of the courses of study and the requirements for admission. The regular courses in science and literature differ very little from similar courses in large Eastern colleges, but it is evident that more attention will be paid to the needs of special students in science and the mechanical arts than is given in any American college, with the exception of Cornell University. Tuition in every department will be free, and board will be furnished at cost—\$3 per week. Room rent will only be \$1.50 per week, so that a student may keep his expenses within \$300 per year. The dormitory for boys, which is now completed, is called Madrono Hall, after one of the handsomest trees in the California forests, while the girls' dormitory is called Manzanita Hall, after the rugged mountain tree that has wood like mahogany. The girls' dormitory will not be finished until next year. These college dormitories are as beautifully finished as any of the new buildings at Harvard or Yale. When the institution opens next October it is probable that all the rooms will be filled. Near the university has been established the pretty town of Palo Alto, in which many who purpose sending children to Stanford University have purchased lots and propose building cottages. Within a mile of the university buildings is the town of Maryfield, which will be able to furnish any additional accommodations required at the outset.

—Dr. Dérigrac (*Soc. méd. des Hôpitaux*) has observed painful phenomena referable to the stomach, diarrhoea, vertigo, weakness of the limbs, elevation of temperature, black urine (in which the perchloride of iron test showed the presence of salicylic acid), after three doses of salol of twenty centigrams each, in a woman suffering from acute gastro-enteritis. These symptoms might have been referred in part to the disease rather than the drug, but a subsequent administration of salol brought on the same train of derangements. In a child of twelve years a ten centigram dose three times repeated produced the same effects.

—The Board of Health of Philadelphia will petition Congress to establish one or more stations in the country for the sequestration and cure of leprosy.

—The gold medal given to Virchow on his seventieth birthday is the largest ever made. It weighs nearly six pounds, and the metal alone is worth \$1,750.

—Dr. Hammond has collected seventy cases which have occurred in the city of Washington alone, during the past ten years, of men dying suddenly from running after the cars.

—An annunciator company at Detroit has made a novel proposition to the directory of the World's Fair. It proposes to connect the cities of the two hemispheres by electricity, so that when President Harrison touches the electric button and starts the machinery the fire bells will ring and the national flag will be hoisted in towns all over the United States and the opening of the exposition announced to the cities of the Old World.

—**DRINK.**—In New York City alone seventy million dollars are annually expended for alcoholic drink. Allowing an average width of but twenty-five feet to each of the eight thousand saloons in that city gives a total frontage of thirty-eight miles.

—The *N. Y. Tribune* is responsible for the following statement:

"No case of typhus fever and no deaths from it last week. Good evidence, this, that the disease is fully under control, thanks to the able work of the Bureau of Contagious Diseases. For the introduction of this malady into the city last winter the newly appointed Tammany health officer was responsible. A Tammany blessing, indeed!"

[This is another blow to political influence in medical appointments.—Eds.]